

AMERICAN NURSERYMAN

The Nurseryman's Forte: To Make America More Beautiful and Fruitful

JUNE 15, 1946

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AMERICAN NURSERYMAN

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The Nurseryman's Forte: To Make America More Beautiful and Fruitful

VOL. LXXXIII, No. 12

JUNE 15, 1946

Founded 1904
With which was merged 1939
THE NATIONAL NURSERYMAN
Established 1893

* * * * *

Published on the
first and fifteenth
of each month by the
AMERICAN NURSERYMAN
PUBLISHING COMPANY
343 South Dearborn Street,
Chicago 4, Illinois.
Telephone: Wabash 8194

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Subscription Price:
\$2.00 per year; outside
United States, \$2.50;
Single Copies, 10c.

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Advertising Rates
on application.
Forms close ten days
before date of issue.

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Entered as second-class matter
December 14, 1933, at Chicago,
Ill., under act of March 3, 1879.

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SPECIAL A.A.N. CONVENTION NUMBER—OUT JULY 15.

Again this year the big issue of the American Nurseryman will be the A.A.N. Convention Number, with all four cover pages carrying plant pictures in colors. This is a veritable annual buyers' guide—the special editorial features and diversity of advertising offers cause subscribers to retain it for reference and consult it again and again. Be sure to reserve your space early—do it now!

For next regular issue, July 1, forms will close June 18.

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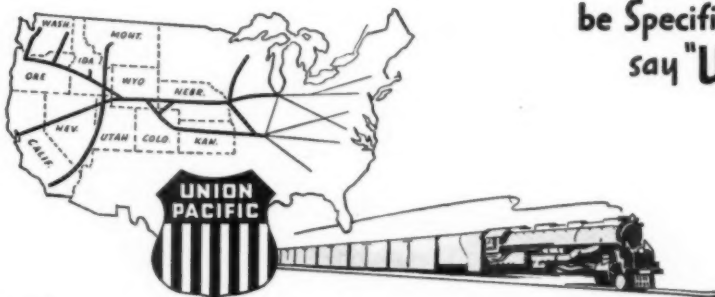
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| 1 AVAILABILITY OF RAW MATERIALS | 6 HEALTHY LIVING CONDITIONS |
| 2 ADEQUATE SOURCES OF POWER | 7 GOOD SCHOOLS |
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AMERICAN NURSERYMAN

F. R. KILNER, Editor

Editorial

SPRING BUSINESS.

In spite of a general and severe handicap in the shortage of labor, wholesale nurserymen enjoyed a large volume of business this spring. The scarcity of labor was offset in some degree by the favorable weather that prevailed in most sections of the country. Only because of the long cool season, with a minimum of lost time from wet weather, was digging completed to a satisfactory degree. On that account a moderate labor force was able to work effectively, because of little lost time.

Favorable, also, was the circumstance which permitted nurserymen to complete their shipping before crippling strikes interfered with transportation. While the embargo caused by the coal strike was of short duration and while the railroad strike was a matter of but a few days, the tie-up of freight cars and the delay of mail and express packages caused shippers continuing difficulties. The nurserymen's escape from similar trouble is a good fortune not the least of the season's gifts. That they did not share the strike-bound condition of many industries is another of prime consideration.

Retail business was all that could be handled with the labor available, particularly in the landscape and cash-and-carry fields. Some increase in help came with returning veterans and war factory workers, but not enough in most localities. Only in the mail-order field was there some diminution of business toward the end of the season, or at least not so large a volume as anticipated. Whether the weather, strikes, prices or some other influence was responsible is not agreed. The chief lack of orders was in fruits, upon which the homeowner and victory gardener were probably well sold in the preceding seasons, while orchardists are deterred by continuing labor shortage from placing their orders yet.

Supplies of stock may be expected to increase another season, as this spring was much more favorable for planting than last year. But with the housing boom approaching, and other markets for nursery stock continuing or increasing, it is likely that supplies will approach no nearer a surplus than this year. Prices will likely be maintained on most items, and even increased, in view of mounting costs

of labor and supplies. The settlement of current strikes continues the inflationary spiral, bringing a higher level of prices in general.

WAR MEMORIALS.

With the gradual return to peacetime conditions in this country, plans for memorials to those who served in World War II are coming to fruition in various communities.

The perpetuation of the memory of veterans of the late war by means of living memorials—meaning parks, playgrounds, groves and gardens—has won much popular favor since the brochure by the title "Living Memorials" was distributed by the American Association of Nurserymen two years ago. Living, growing plants are felt to express the life and service of the young men and women who contributed to their country's victory in the war.

Whether the tide is so strong in favor of living memorials that its force has been already felt in fact as well as thought, or whether the current public relations program included it as a matter of course, the American Monument Association, Inc., an organization of producers of monumental marble and granite, is now distributing a handsome pictorial brochure, "Lest We Forget," that presents effectively the place of memorials of stone. It was prepared "to assist those charged with the solemn duty and high privilege of deciding what type of memorial shall be erected."

When the final decision comes in each community in regard to the type of memorial, it is hoped that tradition itself will not be permitted to cast the die for cold monuments of stone, but that the discussion and ideas that have been widely offered in behalf of living memorials will continue to have the attention and full consideration of civic leaders and planners. The late war brought forth new political thoughts and new governmental conceptions. Its memorials likewise may well see a change from old-time forms.

COLUMNAR TREES.

Several years ago a picture of the sentry maple formed the cover illustration of this magazine, and none other has ever brought so many inquiries about the plant and where it might be obtained. Its usefulness was recognized by nurserymen who knew

very little about columnar trees aside from the time-honored poplars. Available sources of supply, unfortunately, proved to be meager, and the stock small. However, the interest engendered served to stimulate production in a few places, though probably one would not find many available trees of the sentry maple today.

Modern types of residential planting and enlightened attention to street plantings have brought greater demand for columnar trees. To meet this demand, nurserymen should provide those of the better type. If this is done, a market for an increasing quantity of columnar trees, intelligently used, will be presented to the nurserymen of the country.

To meet the expected call, selection is possible of the more valuable types because of the information presented in the article beginning on the opposite page. The service which the author has done by selecting the valuable trees for this purpose, and listing the inferior types which might be discarded, is one which nurserymen will thoroughly appreciate. They will be guided, through the work which he has done, to propagation and growing of trees which will redound to their credit and give the public the greatest satisfaction.

STRIKES AFFECT CROPS.

The strikes in packing houses, chemical factories, coal mines and on the railroads will have a serious effect on some farm crops because of critical shortages resulting in insecticides and fungicides.

"An emergency crop survey conducted jointly by the industry and the government recently disclosed that tremendous acreages will have to be plowed under unless growers receive essential pesticides to protect them," L. S. Hitcher, executive of the Agricultural Insecticide & Fungicide Association, said recently.

"This is the most critical growing season of the year. The agricultural industry spends annually \$100,000,000 for insecticide and fungicide materials," he explained.

Copper and sulphur, principal sources of fungicides, are both critically short. Spray lime is scarce in some areas. Containers are a problem.

Growers should be watchful to be sure they have adequate supplies to protect their crops from the season's pests.

The Mirror of the Trade

Columnar Trees Worthy of Growing

By Donald Wyman, Arnold Arboretum

Various articles have appeared in horticultural magazines during the past years concerning columnar trees. It is difficult to determine why more of these trees are not grown in nurseries. It may be that the demand for them is decidedly limited. It may be that nurserymen are not familiar with sources of propagating material. It may be that, because they all must be grafted or budded, they are so expensive to grow that nurserymen in general favor other plants that are more lucrative. It has been our experience that a columnar tree, known to be a valued specimen over a long period of time, still creeps into the trade very, very slowly. Let me cite one example.

Acer saccharum monumentale was first propagated in the Arnold Arboretum in 1885. One specimen has been growing in a conspicuous situation in the arboretum ever since; it is now well over fifty feet tall and can be seen from one of the much-traveled automobile highways into Boston. In fact, this tree is only 150 feet from the road, and in normal times 11,000 cars pass within sight

of the tree from 7 a. m. to 6 p. m. Its picture has been reproduced many times in nationally circulated publications, and it has undoubtedly been brought before at a least a million interested readers in the past few years. Since 1922, well over 5,000 scions have been taken from it and at least twenty-two living plants propagated from it have been sent out by the Arnold Arboretum, yet with all this, stock of this tree is extremely difficult to locate; frankly, I know of only one nursery having it and the stock there is very limited. After going through several hundred 1946 nursery catalogs, I did not find it listed in one.

The point is that there are some good columnar trees growing in this country, and it would behoove interested nurserymen to propagate some stock. There are a few which have been widely distributed, and every nurseryman will know where stock of these more popular ones is available. Others, however, may be more difficult to locate; so I shall give sources of plants now living for every variety of columnar tree I think worthy of growing. Undoubtedly there are other good columnar trees, but those in the following list have been definitely located and are alive now. I do not think that the owners of these trees would welcome being overwhelmed for grafting material, but those of us who are interested in good trees should not write about them unless specific locations can be given for living specimens. It should be emphasized that these are not the only locations—there are undoubtedly others. But, in mentioning these, we are not talking about varieties which have cropped up in the dim and distant past and are now only names in reference books, but varieties which are very much alive and growing today. With the proper approach to the owners, some propagating material may be obtained. Let us examine a selection of thirty-eight worth-while columnar trees.

Maples.

There are at least four columnar maples worthy of mention, and undoubtedly there are others. Several are somewhat confused; so let us examine them carefully. The fastest-growing varieties are *Acer rubrum* columnare and *A. platanoides* erectum. Fast-growing columnar trees are needed to compete with the poplars, especially the Lombardy poplar;

hence these varieties have merit. Our plant of the columnar red maple came from the old Parson Nursery, at Flushing, L. I., in 1889, and is now at least sixty feet tall and twenty feet through. Another plant from similar stock is fifty feet tall and only ten feet through. A red maple may have weak wood, but to the best of my knowledge these trees have never been injured by snow or ice.

The variety of the Norway maple, now called *Acer platanoides* erectum, originated as a single tree in the Mount Hope cemetery, at Rochester, N. Y. It was originally noticed by B. H. Slavin and has since been widely propagated and distributed in the Rochester area. This has been termed incorrectly as variety *ascendens* and var. *columnare*, but the varietal name *erectum* should be used, for it certainly is indicative of the narrow, erect habit of this excellent tree. One specimen in the arboretum is thirty feet tall and six feet through at its widest part near the base of the tree, the rest being a mere two feet in diameter. Another variety called



Acer rubrum columnare growing in the Arnold Arboretum.



Acer saccharum monumentale as it is growing in the Arnold Arboretum. This makes a splendid mature tree, but younger trees frequently have a single trunk and may be as much as thirty feet high and only a few feet in diameter.



Acer saccharum monumentale, left, and *Acer rubrum columnare*, right, as they look today in the Arnold Arboretum.

columnare has been described, but I am not certain where correctly named trees of this variety are growing in the United States. Certainly nurserymen could not want a more erect and narrow fastigate tree than *Acer platanoides erectum*.

Two fastigate varieties of the sugar maple have been found and described, although one can find many variations in nature. *Acer saccharum monumentale* was originally found growing in a cemetery at Newton, Mass., over sixty years ago. Young plants may be very narrow indeed, one measuring about thirty feet high and two to three feet wide, which is almost too narrow to be practical. However, our mature specimen at the arboretum is about sixty feet tall and eight to twelve feet through at the top. This variety grows slowly.

Probably the better of the two varieties is *A. saccharum columnare* (sometimes called variety *pyramidale*) because it is a dense, compact, broadly columnar tree. Because of the wider appearance throughout its entire length (one of our trees is fifty feet tall and six feet in diameter) it has considerable value as a street tree. Because of the erratic growth of *A. saccharum monumentale*, the sentry maple, while the

plant is young, it had best not be used for street tree planting.

Elms.

At least a dozen elms can be classed in the category of fastigate trees; all mentioned are growing in the Arnold Arboretum. There are undoubtedly other selections just as worthy. First and foremost would come the selections of the American elm, like Moline, Littleford, Princeton, Lake City, one botanical variety called *columnaris* and another called *ascendens*. The last-named variety was largely developed by B. H. Slavin, of the Rochester parks, and there are streets in Rochester, N. Y., planted exclusively with it. Naturally, most of these are clonal selections; some may be more easily told apart than others. We have a tree of Princeton twenty-five feet tall and only eight feet through, and another tree of Lake City with similar dimensions, but larger, more vigorous trees might be twice this width. Our largest tree of Littleford is fifteen feet tall and only four feet through. All are good. Local nurserymen may have special reasons for growing one form instead of another, but the important point is that all are definitely fastigate.

There are also five varieties of the smooth-leaf elm, *Ulmus carpinifolia*, which have been widely used in Europe. These, as a rule, do not grow so vigorously as the varieties of the American elm just mentioned, and in general their habit is smaller; hence they have value in situations where great height is not desirable. Also, they tend to be densely and narrowly pyramidal, rather than definitely columnar in habit. However, they can be used in some places as fastigate trees, but this qualification of pyramidal growth should be kept in mind.

The variety we have as *dampieri* is twenty-five feet tall, pyramidal and fifteen feet through at the base, while a similar variety *sarniensis* is the same height but only twelve feet in diameter at the base. The variety *sowerbyi*, about as tall, is only eight feet through, while *webbiana* is about ten feet in diameter. Another variety, called *umbraculifera*, is the only one which is definitely not pyramidal but more or less columnar.

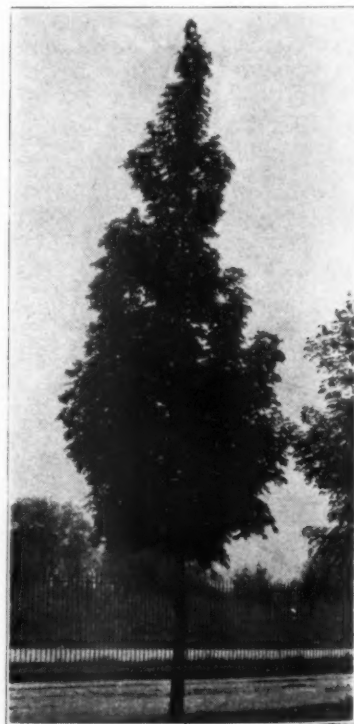
One variety of the Scotch elm might be mentioned, *Ulmus glabra exoniensis*, since it is growing forty feet tall in the arboretum and is only ten feet in diameter at the base, certainly a plant worthy of inclusion in this group. Of course, this plant, like other varieties of the Scotch elm, is

unusually susceptible to attacks of the elm leaf beetle.

Other Columnar Trees.

There are other columnar trees which can be classed as vigorous-growing. The upright-growing forms of the English beech, *Fagus sylvatica fastigiata*, and the English oak, *Quercus robur fastigiata*, are both common in the trade and have been widely grown for many years. There is a fastigate form of the Ginkgo biloba also, and several nurseries claim to have it, but this plant grows in a most peculiar fashion. It will grow decidedly fastigate for thirty or forty feet and then all of a sudden one branch will revert to the wide-spreading habit of the species. There are some plants of this fastigate ginkgo along the Roosevelt boulevard as it enters Philadelphia from Trenton and another good specimen near Horticultural Hall in Fairmount park, Philadelphia. We do not have true plants at the Arnold Arboretum, and I do not think they are grown in the Rochester park system either.

One linden should be on every list of fastigate trees, *Tilia americana fastigiata*. Decidedly columnar in habit, it grows eighteen to twenty-four inches per year. Our plant, thirty feet high, is only six feet in diameter, making it one of the best



Acer platanoides erectum (Courtesy, Rochester Parks Department, Rochester, N. Y.).

of this group. There is another linden now advertised in the trade, *T. platyphyllos fastigiata*, but when we obtained plants of this from a prominent nursery, they turned out to be *T. americana fastigiata*; hence it may be identical with *T. americana fastigiata*. *Sorbus aucuparia fastigiata* is also a possibility, a plant still being alive, although in poor condition, in a garden at 75 Bellevue drive, Rochester, N. Y.

Two poplars are worthy of note, *Populus alba pyramidalis* (often called *P. alba bolleana*) and *P. simoni fastigiata*. The Bolleana poplar is commonly grown in nurseries, and the other should be. One of our plants of *P. simoni fastigiata* is twenty-five feet tall and a mere four feet in diameter. Its small bright green leaves make it an admirable substitute for the Lombardy poplar, which is extremely susceptible to canker disease.

One tree which should be mentioned because of its beautiful flowers in late April and its fiery red autumn color is the columnar form of the Sargent cherry, *Prunus sargentii columnaris*. It is interesting to note that columnar plants have been grown from seeds independently, at Rochester, N. Y., by the park department, and in the Arnold Arboretum. The name *P. sargentii columnaris* was first used in describing the Arnold Arboretum plant (1939) and hence the name given the Rochester plant in 1941, *P. serrulata fastigiata*, should

be a synonym. Easily thirty feet tall and seven feet through, our plant has several main leaders, while the Rochester plant has a single trunk and is slightly more narrow. Pruning so that a single trunk remains undoubtedly makes a more desirable tree. Because of its ornamental potentialities, its comparatively vigorous growth and its freedom from serious pests, this is one columnar tree which should be widely propagated.

Smaller Trees.

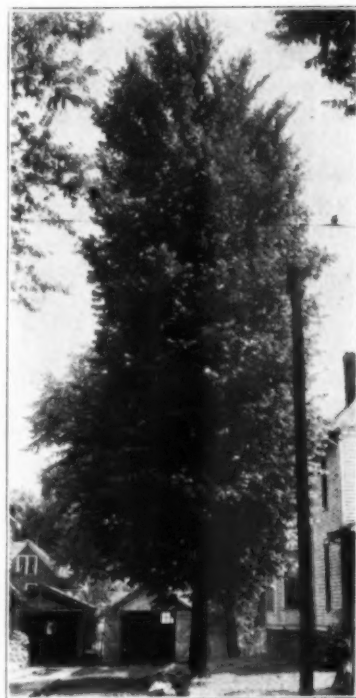
Another columnar Oriental cherry is *Prunus serrulata Amanogawa*, available from one or two nurseries, growing in the Arnold Arboretum and with one of the original trees imported into this country still growing, I believe, at Chevy Chase, Md. This has semidouble, light pink flowers, but is definitely in the smaller group of fastigate trees, seldom growing over twenty-five feet tall. It is especially suited to formal plantings and is not unattractive as a lawn specimen. This is still a rather difficult plant to find in nursery catalogs.

There is also a columnar form of *Cornus florida* which has arisen in the Arnold Arboretum. Growing about twenty-five feet tall, it is twelve feet in diameter and, although not truly columnar, nevertheless it is showing every indication that it will retain a more narrow habit than is customary with most dogwoods. A fastigate form of the Washington thorn, *Crataegus phaenopyrum fastigiata*, has been prominently displayed on the golf course in Durand-Eastman park, Rochester, N. Y., for several years and has promise as a small fastigate ornamental, with good flowers and splendid red fruits. Even the dense, upright *Carpinus betulus columnaris* has possibilities, but this grows very slowly and for this reason may not prove too popular.

Evergreens.

Certain varieties of red cedars and arborvitae are obviously columnar and in the following list I have mentioned only a few of many. *Pinus sylvestris fastigiata* and *Picea engelmanni fastigiata* are both very narrow in habit and very slow in growth, taking many years to grow into fairly usable specimens. *Pinus cembra* can be in the narrowly pyramidal group, while *Pinus strobus fastigiata* when young is definitely narrow in habit, but with increasing age begins to fill out, so that it is not dependably columnar throughout its entire life.

There are some plants, like *Corylus colurna*, *Magnolia salicifolia*, *Cerci-*



Ulmus americana columnaris growing a few years ago at Normal, Ill. (Courtesy, A. M. Augustine, Normal, Ill.).

diphyllum japonicum, several *malus* species and varieties, *Liriodendron tulipifera fastigiatum* and several others, which when young are very definitely columnar, but their branches spread with age and they soon lose their columnar character. For a time these will serve admirably, but because they do not retain this desirable habit throughout their existence, they are not recommended here.

The twenty trees I have listed as not to be recommended have been accepted at various times as worthy of growing because of their columnar habit. All but one of these have been growing in the Arnold Arboretum for many years, and because of their various shapes now, I think they should be discarded as columnar trees. Those in the recommended list keep their columnar form permanently and hence are eminently superior to those twenty which have conclusively proved—here in the Arnold Arboretum—that they do not retain their columnar form when mature.

In conclusion, I should like to point out that there are undoubtedly many other good (and bad) varieties of columnar trees growing in this country. It might be suggested that other varieties might be accepted (or rejected) for growing after they have been fully compared with the thirty-



Tilia americana fastigiata (Courtesy, Rochester Parks Department, Rochester, N. Y.).

eight varieties in the following recommended list.

Recommended Columnar Trees.

1. Growing in the Arnold Arboretum, Jamaica Plain, Mass.
2. Growing in the Rochester parks, Rochester, N. Y.
3. Growing in various nurseries.
4. Mrs. Robert Keller, 75 Bellevue drive, Rochester, N. Y.
5. Roosevelt boulevard, Philadelphia park department, Philadelphia, Pa.

Acer platanoides erectum—1, 2.
Acer rubrum columnare—1, 2.
Acer saccharum columnare—1, 2.
Acer saccharum monumentale—1, 2.
Carpinus betulus columnaris—2.
Cornus florida fastigiata—1.
Crataegus phaenopyrum fastigiata—2.
Fagus sylvatica fastigiata—1, 3.
Ginkgo biloba fastigiata—3, 5.
Juniperus chinensis mas—1, 3.
Juniperus virginiana fastigiata—1, 3.
Juniperus virginiana pyramidalis—1.
Picea engelmanni fastigiata—1.
Pinus cembra—1, 3.
Pinus strobus fastigiata—1, 3.
Pinus sylvestris fastigiata—2.
Populus alba pyramidalis—1, 3.
Populus simoni fastigiata—1.
Prunus sargentii columnare—1.
Prunus serrulata Amanogawa—1.
Quercus robur fastigiata—1, 3.
Sorbus aucuparia fastigiata—2, 4.
Thuja occidentalis douglasii pyramidalis—1, 3.
Thuja occidentalis fastigiata—1, 3.
Tilia americana fastigiata—1, 2.
Tilia platyphyllos fastigiata—2.
Ulmus americana ascendens—1, 2, 3.
Ulmus americana columnaris—1, 2, 3.
Ulmus americana Lake City—1, 3.
Ulmus americana Littleford—1, 3.
Ulmus americana Moline—1, 3.
Ulmus americana Princeton—1, 3.
Ulmus carpinifolia dampieri—1.
Ulmus carpinifolia sarniensis—1.
Ulmus carpinifolia sowerbyi—1.
Ulmus carpinifolia umbraculifera—1.
Ulmus carpinifolia webbiana—1.
Ulmus glabra exoniensis—1, 2.

Trees Which Are Not Recommended Since These Are Not Permanently Columnar in Habit.

Acer saccharinum pyramidalis—1, 2. As it matures it loses columnar habit.
Aesculus hippocastanum pyramidalis—1. Our tree is certainly not columnar.
Carpinus betulus fastigiata—1. Not columnar, more rounded in habit.
Carpinus caroliniana pyramidalis—1. Not columnar, widely pyramidal.
Cercidiphyllum japonicum—1, 3. Only columnar while young.
Crataegus monogyna stricta—1, 2. Our tree is thirty feet tall and thirty feet through, definitely not columnar.
Liriodendron tulipifera fastigiatum—1, 2. Not columnar at maturity, but definitely more dense and upright in habit than the species.
Magnolia acuminata—1, 3. Only columnar while young.
Malus baccata columnaris—1. Branches grow upright, but weight of fruit pulls them down and permanently spoils habit.
Malus florentina—1. Not columnar at maturity.
Malus robusta erecta—1. Branches grow upright, but weight of fruit pulls them down and permanently spoils habit.
Malus robusta fastigiata—1. Branches grow upright, but weight of fruit pulls

them down and permanently spoils habit.

Populus nigra italica—1, 3. One of most popular columnar trees, yet it should be discarded because of a serious canker disease that gets on the upper trunk of older trees and usually kills the upper part of the tree, permanently marring its beauty.

Pyrus communis—1, 3. Not columnar at maturity.

Robinia pseudoacacia erecta—1. Older plants do not show desirable habit.

Tsuga canadensis fastigiata—1. Too slow in growth and too narrow to weather satisfactorily winter snow and ice storms without annual protection.

Ulmus carpinifolia cornubiensis—1. Not columnar in habit.

Ulmus carpinifolia wredei—2. Similar to *U. carpinifolia dampieri* in habit, but because of yellowish leaves, I do not think it desirable, for there are other much better varieties.

Ulmus hollandica Klemmer—1. Our tree does not appear columnar. It is seventy feet tall and forty feet through.

Ulmus hollandica superba—1. Our tree, over fifty feet tall, does not appear to be in the columnar group.

COVER ILLUSTRATION.

Kerria Japonica.

It is unfortunate that *Kerria japonica*, a native of central and western China, is not a more reliable shrub, since it has a number of interesting characteristics to commend its use. This little shrub of four to five feet in height has slender, light green stems, light green slender pointed leaves and beautiful yellow flowers. The slender green stems are particularly outstanding during the winter months, and this plant is one of our best small shrubs for showy stems. The leaves are one to two inches in length, doubly toothed and lighter green in color than most of our common shrubs. This contrast in foliage color is one of the interesting characteristics of the plant. The fall foliage color is a clear yellow.

The flowers are produced in late April or early May, are yellow in color and are borne terminally on lateral branches.

The double-flowering variety, *pleniflora*, pictured in the cover illustration, is a larger, more upright-growing shrub of six to seven feet in height and bears double yellow flowers, usually a week or more later than the flowers on the species. The double-flowering variety, while possibly more interesting in flower, is less outstanding in its over-all effect.

Kerria japonica does best in good, well drained soil in partially shady situations. It is not fully hardy and after severe winters may need cutting nearly to the ground. The double-flowering variety is somewhat more hardy than the species. *Kerria* is troubled with a blight, which often destroys the effectiveness of the

plant. Propagation is easily accomplished by softwood cuttings.

The species is best used as an underplanting in partially shaded locations where it can be used in masses. The double-flowering variety can be used in the more sunny exposures of the shrub border. L. C. C.

CURLY ASPEN VALUABLE.

Results from scientific studies point out that curly aspen trees can be planted for erosion control, or along a driveway, and that a profit can be expected from this valuable tree crop which matures much sooner than most timber plantings.

Curly aspen logs come from hybrid trees, according to Dr. Samuel Grober, of the Soil Conservation Service, who studied these poplars growing in more than fifty locations. The desired tree is a hybrid of white and gray poplars, combining the firm wood of the gray poplar with the figured, but otherwise low-value wood of the white form.

Trained plantmen could probably distinguish between the two poplars growing in the field, but unless stock is obtained from a nursery, one should be certain that the root sprouts used for planting are from a tree that has produced curly aspen logs.

Both the white and the gray poplars are European, introduced and widely planted in the United States as ornamentals. They grow well from New Hampshire to Kentucky, and are of especial interest to soil conservationists because of their rapid growth and the spreading fibrous root systems that are excellent for holding soil in place. Dr. Grober's botanical study revealed the difference between the white and the gray poplars. The wood of the former is virtually worthless, while the logs from a generally similar tree, the gray poplar, or curly aspen, would sell from \$25 to \$800 because the wood is firm, highly figured and of light-colored veneer.

PATSY DONOFRIO, of Carroll Gardens, Westminster, Md., plans to begin construction of two green houses at an early date.

PETER CASCIO, West Hartford, Conn., attended the convention of the Reserve Officers' Association at Chicago, May 31 to June 3, as a Connecticut delegate. Though busy putting his own 30-acre nursery in shape after three years in service, he recently bought much of the perennial stock of the Glastonbury Gardens, Glastonbury, Conn., which are being discontinued.

Developing Sales and Display Grounds

PART II

By Harold E. Hunziker

In order to attract the passers-by to a display and sales grounds location, a great deal of consideration was given by the designers in the contest for nursery sales and display grounds plans to various means of making the "greeting" along the front of the property attractive, so as to induce motorists to enter the establishment. In many of the designs, the entire front of the grounds was used as a show window, by means of well landscaped grounds and displays which would attract the attention of those traveling by on the highway. This was done by various schemes. One designer thought of having a simple low hedge in front which would allow a full view of the property. Others thought it best to put the building close to the highway and attract attention by having various seasonal displays right at the highway line. These displays would be showing plants when they were at the height of their beauty, such as pansies, azaleas, phlox, geraniums and, in the fall, colorful displays of chrysanthemums.

A California designer had an interesting plan, with the building brought close to the highway line. Parking was arranged along the front of the building. A long lath house ran from the display building parallel with the roadway. "View ports are cut through the lath house to permit a fleeting, tantalizing glimpse of the mysteries within (Fig. 3). Specialty plants are displayed in the front plantings as living signboards to remind motorists of the desirability of owning those plants," it is explained.

One design, which seemed to have a good deal of merit, was worked out in a country estate manner with a split rail fence across the front, except for the opening of the drive. The plan was delightfully done in an informal manner.

Some of the simpler yet effective designs gave a large expanse of lawn in front of the display building, possibly dominated by only a square or circular pool with a jet of water to attract attention. The idea of having a water display caught the fancy of at least four or five designers. It was further suggested that the pool could be electrically lighted for night display and serve as an important advertising medium. As several of the designers pointed out, all is not lost in having a large central panel of glass, for this area could be utilized for the

display of seasonal articles, arranged in attractive groupings. Then, too, it was thought that a good use of reasonably large areas of lawn would set off the grouping of plantings, which lend to a good landscape atmosphere. This seemed highly important in attracting those persons who might be more interested in a landscape planting than in the purchase of a single plant or a small group of plants or a garden feature.

One planner made a great deal of use of broad grass paths rather than those of other mediums. However, most of the designers thought it best to have their walks worked out in some permanent form. Concrete walks were conspicuous by their absence on many designs. Only service walks, in the majority of cases, were used in concrete. There was a dominance of suggestions in paving the walks with flagstone, brick or blacktop. Several of the illustrations will show the arrangements for walks for convenience in the display grounds (Fig. 1, in June 1 issue).

Screen Service Areas.

In making a development of this kind, emphasis should be given here that the appearance of the grounds should be good at all seasons of the year. This should not only be true for the patrons of the establishment, but for the passers-by on the public highway. Since the display grounds may be located in a suburban residential neighborhood, it seems desirable that the character of the grounds should be in harmony with the surroundings in the neighborhood, or even better. One should strive to make the grounds attractive and as

well designed and well maintained as possible so that they would be an asset to the community. It is desirable to have the good will of the property owners adjacent to the display grounds.

On most of the plans, service areas and heeling-in grounds were definitely screened from the landscape areas. This gave the all-over appearance much like a well landscaped ground, excepting for the seasonal display bed and display racks, which was thought to be effective by some of the designers. More will be said about this in later articles. The screen plantings can themselves be attractive, for they can display such plants as shrubs, evergreens and flowering trees, which, even though in a permanent display, would serve the purpose of showing how mature plants would look. In this way, they would tend to sell more plants of the same variety and give the customer an idea of how the plant would look when it became larger.

Some of the plans provided for areas in which chairs and benches could be located for patrons to rest. To be able to see these areas from the highway would be inviting to the passers-by who had guests with them who might not be interested in browsing around the nursery establishment, but would welcome an area in which they might sit for a while while others in the party could negotiate for plantings or for plants to take with them in their car.

Signs for Sales Grounds.

In passing across the country, many of us would say that one of the

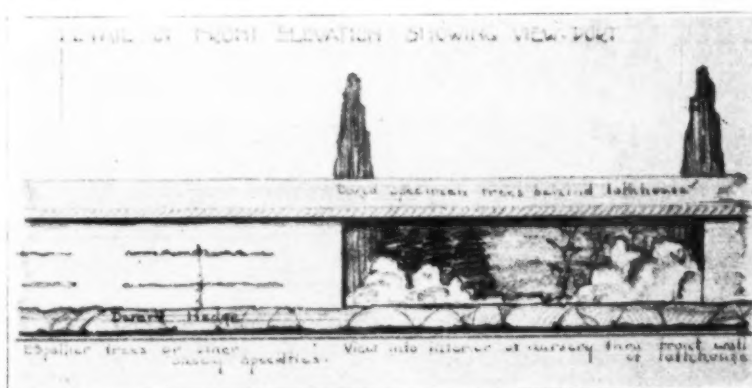


Figure 3. This illustrates the view ports through a lath house featured on the plan drawn by William M. Rowland, Bakersfield, Cal. This plan won a mention from the judges.

greatest marts to our native landscape plantings is the overuse of signs. Fortunately, most of the designers were conscious that an overuse of signs would defeat their purpose and have employed them in a restrained manner.

Several of the plans showed the use of only two signs to indicate the type of establishment. A few others were more ambitious than that, but in few cases was there a great overuse of signs. One designer suggested that all that was necessary was two simple signs lettered in a plain and readable manner, with subdued colors. The signs were to contain the name of the concern, the type of business, such as "Retail Nursery," "Landscape Service" or "Landscape Gardening." A third sign was sometimes used on the building, which would seem quite permissible for an establishment in a semicommercial section of town. On one plan, the name of the concern and the type of business were merely indicated on a plate inserted in a stone column. This was certainly a dignified manner in which to let the public know about the firm, as was the suggestion of the use of an ornamental wrought-iron sign. In a few cases, the suggestion to eliminate the signs at night was given. Also, in one case it was suggested that a neon sign might be used to attract attention for night selling. This type of illumination offers interesting possibilities.

Lights for Evening Selling.

This brings up the point about the nighttime effect of the display grounds. Considerable emphasis was made on floodlighting the grounds for not only night selling, but also for night display purposes. If the grounds were to be open during the early evening hours, ample lighting would certainly be required. These outdoor sales areas could be floodlighted with the lights hidden in foundation plantings or along the shrubs and possibly up in the trees. One plan showed an effective use of lights on rustic posts, which was in harmony with the architecture of the grounds (Fig. 4). These lights were much like those used in the parks in many of our cities. Another suggestion was given for posts of modern design, starting with a 3-inch pipe, two and one-half feet out of the ground, and then graduated to 2½-inch pipe for four feet and then 2-inch pipe for five and one-half feet. On top of this was arranged a shiny cone three feet wide. This cone shape was also repeated in the columns, which were made of alternate light green and light red cement. These

columns in themselves would be attention-getters for those who wanted to make their grounds most conspicuous rather than more or less subdued or subtle.

Roof Display.

In one of the ultramodern plans, the designer was quite visionary. In fact, in one of his alternate sketches

he showed a flat roof where an autogyro might land in the future trading on nursery grounds. In another alternate plan he suggested that the flat roof might be used for seasonal displays. Here he suggested the use of outdoor furniture, pottery and colorful potted plants. This would serve as another suggestion for the unusual in attention-getting. It was in this same building that he employed the modern theory of having the focal point on a well proportioned building with "three dimensional" displays accomplished by a full view of the store interior as the most important part of the advertising and functional theory of his whole design. Later, a discussion of the types of buildings and some illustrations of those will be shown. It is sufficient to say here that considerable emphasis on the architecture of the display buildings was given by many of the designers. In fact, several of the designers, like the one mentioned above, used the buildings as a focal point for their principal interest in the display grounds. Many of these buildings were well thought out and might well be entered in an architectural competition rather than in a landscape design competition. The reader will have in store an article of interest on several of these display buildings.

There seems to be no uniformity in ideas of where the buildings should be located on the property. As mentioned before, some of the designers thought of bringing their buildings right out to the property line, but the majority used the rear half of the property for the buildings. Some even left an opening in front of the buildings and situated the structures near the rear of the lot (Fig. 5). Local conditions would, no doubt, have some bearing in this regard.

Parking Areas.

Like the location of the buildings, there was no uniformity in the suggestions for the parking areas on the property. In two or three instances, it would seem, undue emphasis was given the parking area. In setting up the rules for the contest, it was suggested that a minimum of thirty cars should be parked within the property lines.

If there was any uniformity in the ideas for parking areas, it would seem that the idea of having a U-shaped drive was the better scheme (Fig. 1). This idea was more often used than any other. In a few cases, the U came in front of the buildings, but more often in the rear, with parking off the side or to the rear. This would allow for pickups at the rear of the building where easy access to beds or packing areas was provided.



Figure 4. Details of rustic lights and entrance column and fence from the plan of Julian E. Schmitz, Watertown, Conn. This plan won an honorable mention.

In a few cases, parking was provided in front of the main building, with service drives on the grounds, so that material could be picked up at several points around the grounds. One especially good arrangement for such parking was known as the "parking plaza," with all traffic movement regulated to make it easy and safe to get in and out under all conditions. This arrangement, according to the designer, also took into account the fact that the parked cars attract attention and indicate that there is something of interest—"something popular within." This parking arrangement is illustrated here (Fig. 5).

Considerable thought was given to the type of pavement to be used in these areas. On those properties where a country effect predominated in the design, roads of gravel with grass gutters were suggested. In the more elaborately designed properties, blacktop was suggested as the best medium for the roads. In a few cases, the areas were paved with brick. Again, there was a conspicuous absence of the use of large areas of concrete for such purposes. Crushed stone was also employed in some cases.

It should be pointed out that almost all of the designers were conscious of the fact that ample width in the entranceway to parking areas and to driveways was necessary. Anticipating fast-moving traffic from a well traveled highway, it should be emphasized that entrance should be large and gracious. In a few cases where single drives were shown entering the property, ample lawn areas on either side were shown so as not to appear to be crowding the driveway. This would seem to be a desirable feature. Also, if there were fences or columns, these were set well back from the roadway entrance to allow for that ease which the public desires in getting in and out of an establishment (Figs. 1, 4). Probably more mistakes are made in underscaling such a treatment than in having it overscaled.

In concluding this article on attention-getting features of the sales and landscape grounds, observers could make the following comments:

The designs that have the most appeal seem to be those in which the general principles of good design have been employed; namely, simplicity, proper scale, a certain amount of balance, harmony of color display and general all-around attractiveness. It goes without saying that, with such an establishment as we are concerning ourselves, the grounds should emphasize a landscape atmosphere in providing for the facilities

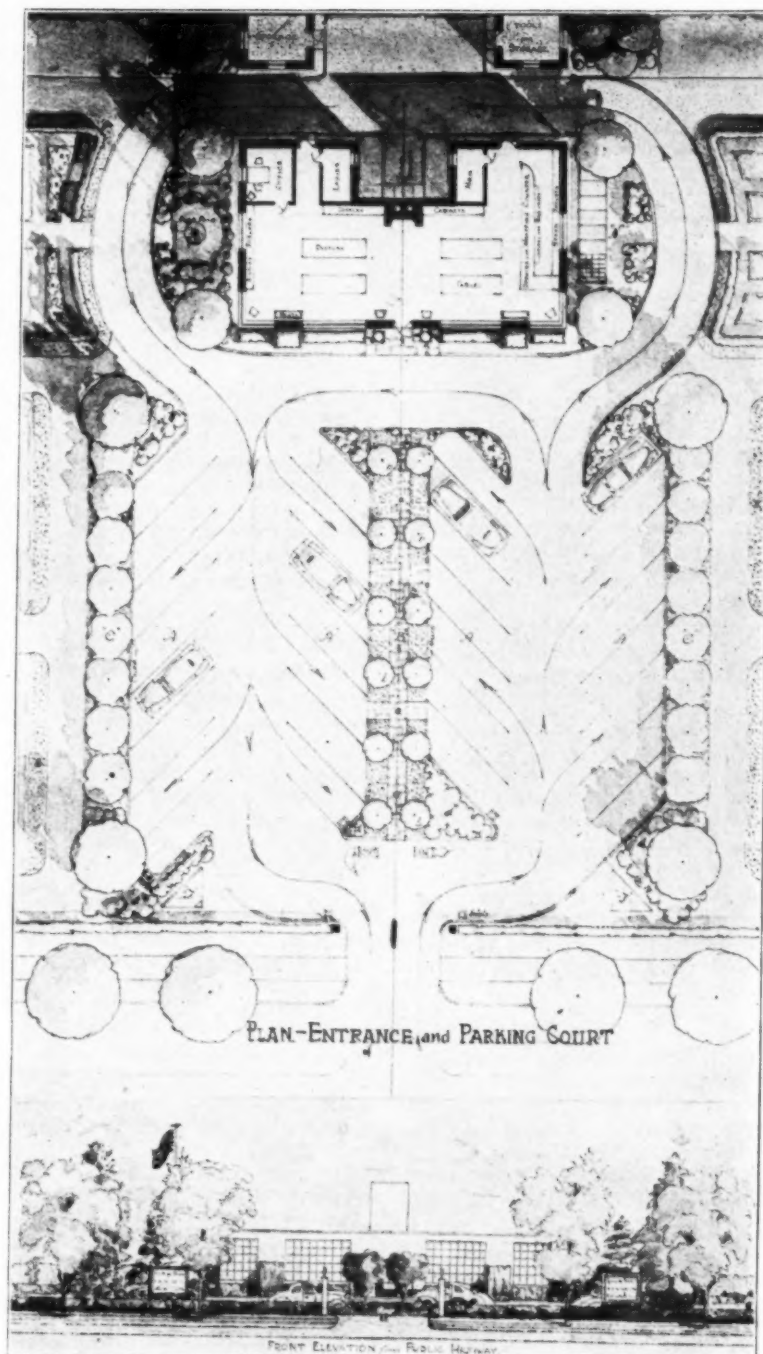


Figure 5. This shows the parking plaza from the first-prize plan of Arthur F. Paul, Conshohocken, Pa. This portion of the plan was taken from the exact center of the grounds.

for displaying plant material and garden accessories. The establishment should be obvious to the passer-by as one that deals with selling beauty in the form of growing plants and those accessories which go with beautiful gardens.

The following articles will deal with other features contained on the plans offered in this competition.

SAM C. STEWART has sold his business at Bridgeport, Conn., and after taking a rest will open up a new evergreen service at Bridgeport, where he has purchased land for a new home and nursery. In the meantime he may work with his son-in-law, Victor Abbott, who is in the landscape business at Stratford, Conn.

AMERICAN ASSOCIATION OF NURSEYMEN

RICHARD P. WHITE,
EXECUTIVE SECRETARY



636 SOUTHERN BLDG.,
WASHINGTON, D. C.

CONVENTION NEWS.

More than 400 reservations have been made for the seventy-first A. A. N. convention, July 14 to 18, at Miami Beach, Fla. Executive Secretary Richard P. White reports that all the allotted rooms at the Ritz Carlton and the Shelborne hotels have been assigned, and although those at the Georgian and National hotels are rapidly being filled, there are still accommodations to be had at these two hotels. Additional rooms were recently reserved at the Hotel New Yorker, next door to the Georgian hotel, so that everyone will be well taken care of.

Gala Banquet Planned.

A special event is being planned for the final evening. A buffet banquet will be served in the Palm Gardens of the famous Roney Plaza hotel. Ocean breezes will rustle through the palm trees which surround a pool and a dancing pavilion in the garden, and soft lights and sweet music will lend further enchantment to the farewell party. In keeping with the vacation spirit of the convention, the banquet will be informal.

Retailers to Meet.

In addition to the other nurserymen's associations which have scheduled meetings at Miami Beach just prior to the A. A. N. convention, the Retail Nurserymen's Association of the United States will meet Monday, July 15, at 2:30 p. m., at the Shelborne hotel.

To Elect Committeemen.

Since no full meeting of the A. A. N. board of governors could be held last year, the delegates from each of the six regions will be required to make nominations for their representative on the executive committee.

The terms of the executive committeemen representing regions 2, 4 and 6 expired in 1945, and the executive committee appointed the incumbents for the year 1945-46. Consequently, it will be necessary for the delegates from the southeast, region 2; the northwest, region 4, and the Pacific coast, region 6, to submit nominations for 1-year terms. Present

holders of these offices are Vice-president Richard H. Jones, Bj. Loss and John A. Armstrong.

Nominations for 2-year terms are to be made by the delegates from regions 1, 3 and 5, since the present terms expire this year. Now serving on the executive committee from these regions are Treasurer Howard C. Taylor, President Arthur Hill and Ross Wolfe. Mr. Wolfe was appointed to the executive committee last year when Past President J. Frank Sneed resigned and was appointed committeeman at large.

ELECT OFFICERS FOR TEXAS ROSE FOUNDATION.

Thirty-seven Texas rose growers met May 18 at Tyler to apply for membership in the newly organized Texas Rose Research Foundation, Inc.

Following the report of the nominating committee, composed of A. F. Watkins, L. A. Dean and W. G. Atwood, officers were elected. The foundation's first president is Clark Kidd, with Jesse Breedlove, Sr., vice-president; C. J. Lauden, secretary, and W. G. Atwood, treasurer. Eleven directors were also named. Elected for 2-year terms were Clark Kidd, Jesse Breedlove, Sr.; W. G. Atwood, Homer Eikner, Carl Shamburger and Howard W. Ford. S. J. Hand, B. L. House, C. J. Lauden, Carroll W. Wilseon and Sam Whiteside will serve 1-year terms.

The new officers and directors held their first meeting May 23 at the office of Secretary Lauden. Dr. Eldon Lyle, foundation plant pathologist, discussed the location of the laboratory and the greenhouse.

Dr. Lyle remained at Tyler to complete purchase of a brick home. According to his plans, the ten acres adjoining the house will be the site of the proposed laboratory and greenhouse and headquarters for the Texas Rose Research Foundation, Inc.

TEXAS ROSE GROWERS VIEW GRASS EXPERIMENTS.

Members of East Texas Rose Growers' Association were invited to a field trip at the Texas agricultural experiment station, Tyler, May 23, for firsthand observation of new

developments in soil conservation. James B. Pope and O. C. Word, of the soil conservation and experiment station service, gave the twenty-eight visiting nurserymen valuable hints on new cover crops. They were assisted by Dr. Eldon W. Lyle, plant pathologist, who began work with Texas Rose Research Foundation June 1.

Experiments in establishing grasses for soil and water conservation were explained. The Tyler substation is recommending two grasses in particular for meadows and strip cropping for erosion control and soil improvement. These are weeping love grass (*Eragrostis curvula*) and little bluestem (*Andropogon scoparius*). Both of these grasses are easily established and grow well on the sandy lands of east Texas. Mr. Pope and Mr. Word demonstrated the usefulness of the two grasses for erosion control and soil improvement in a rotated crop system designed for permanent farming.

FORT WORTH FLOWER SHOW.

A reproduction of the stage as it appeared at the original meeting of the United Nations Organization last year at San Francisco was the theme of the flower show festival held May 10 to 12 at the Will Rogers Memorial Coliseum, Fort Worth, Tex.

The beautiful setting of white columns against a background of trees and shrubs, with a huge reflecting pool and fountain below, which faced the garden plots of fourteen local garden clubs, was largely provided by Baker Bros. Nursery, Fort Worth. Ed Baker, vice-president and general manager of the firm and a member of the Fort Worth park board, contributed greatly to making Fort Worth's first postwar flower show a success. Transformation of the coliseum began five days before the show opened, and more than fifty men from Baker Bros. Nursery worked day and night to dig and transplant the material used at the show, which included twenty-two live oaks, thirty specimen *Arborvitae excelsa* and large specimen *Juniperus virginiana*, as well as smaller plants.

Nurserymen, florists and seedsmen cooperated with the local garden clubs and other amateur gardeners of Fort Worth to stage the festival show. More than thirty musical organizations provided entertainment during the three days of the show, and a silk exhibit was staged in the auditorium concourse by the American Raw Silk Corp. and the Texas mulberry nurseries.

Reports on Spring Business

From nurserymen all over the country come reports of record sales after one of the most strenuous seasons in the industry's history. Handicapped by the acute shortages of labor, packing materials and shipping facilities, as severe as during the war, it was a considerable task to complete the flood of orders on time. Fortunately, bad weather was not a further problem in most sections; in fact, the weather was unusually favorable for spring nursery operations.

Predictions for the future of the industry are generally optimistic, and most feel that it will be some time before the supply of stock will be sufficient to meet the increasing demand. The shortage of labor is expected to continue, and it is thought in some quarters that the present turmoil over wages and prices in other industries will be reflected in wage and price changes throughout the nursery industry.

Over-all Sales Up.

Good weather helped to offset the labor shortage for C. R. Burr & Co., Inc., Manchester, Conn., and President Charles S. Burr reports on a good business, as follows:

"We at Burr's experienced, as did most nurserymen, a good increase in the over-all sales picture. Price resistance was just about nil.

"Our ornamental sales increased greatly at the expense of the fruit line. This is no doubt due to lack of the victory garden interest that we had the previous year.

"Operating admittedly was difficult this spring because of the caliber of the help we had. However, during the past three months we have hired three new foremen, which should help us materially to tighten up our operations.

"Our weather was about the same as elsewhere. We had a premature warm spell. Fortunately, our rainfall was pretty well distributed throughout the season. The weatherman was on our side apparently, arranging to have the rains come at night and on Sundays so that it did not interfere with our plantings, which wound up a couple of weeks earlier than last year.

"This spring we think we took a constructive step forward and delved into some of our costs, with surprising results. For instance, one item which we believed was costing us 15 cents was actually costing us 40 cents.

"The outlook for the coming year

is dependent entirely on the national situation. If the strikes can be straightened out, certainly we ought to go ahead and go ahead fast.

"It is our thinking that some items may be a little more plentiful in supply, but, generally speaking, stock will continue to be on the right side."

Anticipates Increased Wages.

Increased wages and prices comparable to those in other industries are foreseen by Charles H. Perkins, president of the Jackson & Perkins Co., Newark, N. Y., whose firm also had a good season. He writes:

"We have pretty well sold out in most lines, and on the whole it has been a very satisfactory season. There was a demand for all lines, except possibly shade trees, the sale of which seemed to lag. We presume that municipal, state and government plantings have not yet started, which probably accounts for this.

"Labor was the limiting factor and probably will be for some time, perhaps years. It is our opinion that the nursery industry, to keep going, will have to pay labor rates comparable to those in other lines of industry and base the selling prices accordingly.

"The prospects for business the coming season look excellent, and as far as we can judge the demand will far exceed the supply of stock. Prices should increase somewhat with the increase in freight rates, labor rates, etc."

Early Sellout.

With a good season completed, the Fairview Evergreen Nurseries, Fairview, Pa., have completed most of their plantings, says Charles W. Hetz, who comments as follows:

"Our season started out dry and very early; in fact, we hardly missed a day at digging after March 7. Practically every salable piece of stock in the nursery was booked before that time, and though we had the largest crew in five years, we did not fill all orders until the last week in May.

"Planting got under way early and will be concluded with the exception of small stock under irrigation by June 1. Good transplanting conditions were had, although we had about thirty days without rain. This writing at the end of May finds almost too much moisture in the ground.

"Our gross volume of business was about usual, but has been derived

more from B&B stock than from liners, which were nearly depleted. We have better than 100 acres of good young evergreens coming along for digging starting next fall. Yews grow exceptionally well here, and we now have 125,000 upright yews, mostly in small grades, but already planted out in field row spacing. The tendency has been to grow more of the items which show a profit and drop items usually grown for service. Our perennials fell by the wayside. So did our retail trade. This cut out much headache and made both our office and field work more pleasant.

"We were able to get more help this spring, but at the highest figure ever paid, and one wonders if we shall not have to continue to meet rising costs of both labor and supplies.

"The nursery trade has been most fortunate in not having been under price control and has been able to command very profitable prices.

"With demand strong enough to keep constant clearance, with field-grade liners not available and with labor costs mounting along with general inflation, it seems prices must still advance. This condition has its disadvantages, as propagation will now be every grower's first thought, and while the finished stock sells well we shall undoubtedly set the stage for later surpluses."

Record Volume of Business.

Reporting the largest volume of business ever handled by his firm, E. M. Quillen, of the Waynesboro Nurseries, Inc., Waynesboro, W. Va., writes:

"Normally we would say that we enjoyed a large spring business. In fact, we did have a large spring business, but attempting to fill all orders complete, get them out at the time requested, with only half enough labor, was anything but enjoyable. Obtaining orders was no problem, but attempting to handle the orders was a problem. We were fortunate in having a good supply of plant material at the beginning of the season, but later in the season, after we began to run out of varieties, we found it almost impossible to obtain same, making it necessary to refund considerable sums. In spite of all the difficulties, the season ended by showing the largest volume we have ever handled, but we were compelled to neglect the field plantings, as we did not have enough labor. So our

planting was done late, and we fear that we shall cut down on the supply of fruit trees for another year.

"We attempted to make normal plantings of fruit stock. So far we have had a good growing season and our stock is starting exceptionally well, considering the time planted.

"Up until December we had been depending largely on German prisoners of war for our common labor. Since that time some of our old men have come back. We still have only half enough labor to operate our nursery properly."

Drought in Ohio.

Unusual weather and unsettled labor conditions did not prevent good sales for W. N. Scarff's Sons, New Carlisle, O., according to Howard N. Scarff, who reports:

"Again, for the second year in succession, our spring season opened up, along with the abnormally warm weather, early in March. Business continued strong until about the third week in April, when it eased considerably, partly because of a serious early spring drought in our section of Ohio and partly because of the unsettled labor situation everywhere.

"All fruits sold well, and in ornamentals we found almost a mad scramble by landscape planters for evergreens in the medium-size finished stock.

"Labor is still scarce here because of our proximity to the two large government aviation centers and other large industries in Dayton and Springfield. Most of our evergreens were dug on a piecework basis after regular working hours. Jamaican farm labor is available for our summer operations.

"For next season we anticipate a continued good demand for all small fruits and fruit trees, with supplies gradually building up closer to normal levels than during the war years. Shrubs and evergreens in good medium-size finished field-grown stock will probably also continue scarce in our section.

"The immediate future should not be too unkind to the nursery industry as a whole, even though we shall probably continue to face rising operating costs along with shortage of labor in many sections and limited supplies of many items of salable stock."

Predicts Evergreen Scarcity.

Despite the worst labor problems in its history, the D. Hill Nursery Co., Dundee, Ill., filled its orders on time, says William J. Smart, sales manager, who makes some predic-

tions as to the future supply and cost of evergreens, as follows:

"The help problem has been the worst we have ever experienced, as we have had to rely on transient labor from the city, a poor type of help and not at all reliable. However, Mother Nature helped to a considerable degree, as during this spring we only had to cease operations one-half day on account of weather conditions.

"We were able to take care of all our orders in fairly reasonable time and had little complaint from our customers.

"Shipping problems were slight, although the packing situation was serious because of the shortage of boxing material and the tremendous expense of and poor quality of lumber.

"Digging costs have increased to such an extent that a question arises as to what prices to place on nursery stock the coming fall.

"Regarding the supply of evergreens for the immediate future, I would say that this is quite a problem, because of the shortage of labor, inability to obtain certain type of seeds from abroad and particularly a shortage of juniper understocks. The better types of evergreens will be scarce for several years.

"Our planting plans are, of course, to keep up at a good pace within reason and to try to continue to keep a well balanced list which will be available for distribution every year. As to prices, I would say that they will have to be increased somewhat, particularly on the better varieties."

Killing Frosts in Minnesota.

Although cold and dry weather caused considerable damage, the volume of sales was ahead of last year for the Andrews Nursery Co., Faribault, Minn., according to C. H. Andrews, who writes:

"Our shipping is practically over now. The spring season opened up earlier than usual this year, but in April and the first half of May the weather was cold and dry.

"Freezing weather after the growth started damaged some trees and shrubs, but most nursery items are recovering satisfactorily. Incidentally, the apple and plum fruit crops were destroyed by freezing throughout this section.

"The demand, both wholesale and retail, was good, and the stocks are pretty well sold out. The volume of sales is ahead of last year, but cold and dry weather and transportation problems retarded late spring sales.

"We employed school boys and girls to get early planting done.

About May 1 we secured Jamaicans and so will soon have our work pretty well in hand.

"We have made our usual plantings of apple grafts and small fruits, but the stand of plum buds is poor. New plantings have been benefited by the rains during the week of May 20, the first we had of any consequence this spring. Growth is responding well.

"The outlook is good for sales to farmers and for general landscape material. The supply of deciduous ornamentals and evergreens is short. The prospects on the whole are for good business the coming season. The supply of fruit trees is short, and small fruits are in slightly better supply than for several years past, but the demand is expected to be better as more labor becomes available, so the increased demand will absorb the supply."

Sees Higher Costs.

Predicting higher operating costs and scarcities over those of the past year, H. S. Welch, vice-president of the Mount Arbor Nurseries, Shenandoah, Ia., writes of a good season, as follows:

"We have had a mighty fine business this year without a great deal of trouble. We did have trouble getting our evergreen orders dug because of a shortage of labor and finally wound up with several cars of evergreens that we were unable to ship. There were quite a few shortages, and on some items we do not look for a great deal of relief this year. We do feel that most 1-year crops, such as small fruits, perennials and bulbs, should be in more plentiful supply for season 1946-47.

"Costs of operating business were very high and we expect them to go still higher; so we can see no relief from high prices for a year or two. We feel that there is a definite shortage of finer grades of ornamental stock. We also feel that good evergreens and good shade trees are going to be rather scarce in the next two or three years.

"The outlook for lumber, paper and other packing material is still tight, and with the conditions that exist at Washington we are afraid this is not going to be straightened out for some time."

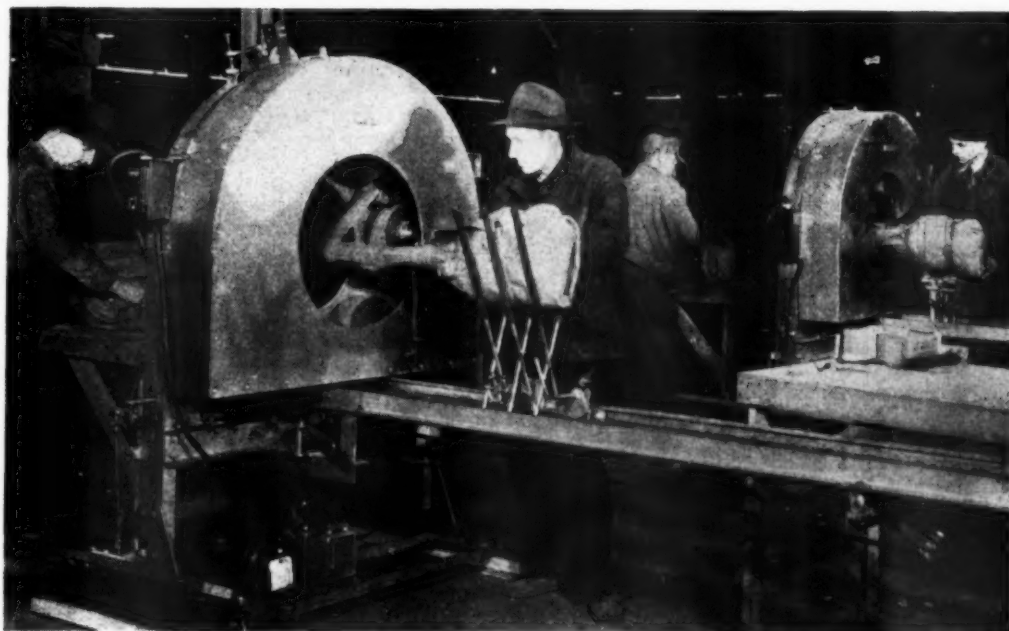
Strenuous Season.

Glad that a difficult, although successful, season is over, Harley J. Deems, vice-president of the Sherman Nursery Co., Charles City, Ia., writes:

"Well, at last we can take a deep sigh of relief, because truly when
[Continued on page 34.]

CYCLONE WRAPPING MACHINE

AT LAST — A machine that will wrap a THREE TO EIGHTEEN-FOOT LONG nursery stock order every FIFTY-NINE SECONDS and SAVE FIFTY PER CENT or more of your present labor costs.



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2. Spiral-wrap tensions adjustable to needs, 2½-in. overlap of spiral-wrap provides maximum protection.
3. Elimination of all twine or string for top wrapping.
4. Five to six men on two Cyclone Wrapping Machines do the work of twelve to sixteen men by hand.
5. Cyclone Wrapping Machines can be operated at maximum efficiency by ordinary unskilled labor.
6. One Cyclone Wrapping Machine will wrap 600 average orders in a 9-hour day. (An incentive plan would greatly increase this production.)
7. Cyclone Wrapping Machine is thoroughly guarded, assuring maximum safety.
8. Rugged Construction—With reasonable care Cyclone Wrapping Machine will give many years of efficient, low-cost service.
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10. Magazine carries 6 rolls of paper, enough for 42 average orders at one loading.
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The Cyclone Wrapping Machine pictured above can be seen and will be demonstrated at any time at Stuart's packing house, Newark, N. Y. Anyone interested should contact Stuart's immediately by letter, telegram or personally.

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Observations on Lilies

By C. W. Wood

The lily formerly known as *Lilium thayerae*, but which we are now told to call *L. davidi*, deserves well of gardeners who are looking for an easy subject that has much merit as a garden ornament. Its nodding, black-spotted red flowers with reflexed petals are similar in many ways to those of the more popular *L. willmottiae*, but *L. thayerae* is a better garden plant because its sturdy stems do not require staking. The descriptive phrase, "a smaller and more refined *L. tigrinum*," will place it quite correctly in one's mental gallery, but that still leaves a void because the two comparisons made do not exactly tell us what *L. davidi* is. In addition to what has been said, the present plant will grow up to five or six feet in height, generously clothed in foliage, especially the lower half or more of its stems, each stem carrying upward of twenty flowers, if it has the rich heavy loam it seems to like. It is useful in the garden not only for the foregoing reasons but also because of its flowering season, which comes just as *L. willmottiae* is finishing its task.

Several forms of *L. davidi* are in commerce, including crosses between it and its near relative, *L. willmottiae*. One of the latter, known as *L. Davmott*, raised by Isabella Preston at the Central Experimental Farm, Ottawa, Ont., is a splendid lily in its better forms. That sentence may sound paradoxical, but it is to be explained by the fact that this lily was first distributed as an Ottawa hybrid and included several plants from the same batch of seedlings, varying not a little in habits and flowers. *L. davidi* is a stem rooter and as such needs rather deep planting, to eight inches in light soil.

My limited experience with *L. duchartrei* has not made me enthusiastic about it in the cooler climate of northern Michigan, even though the beauty of its purple-spotted white flowers puts it among the loveliest of the martagons. I suspect that diseased stock is the cause of its short life, because other lilies from its section of China (Szechwan and Kansu) are hardy this far north. It may be, though, that my garden is too dry for the plant (Wilson speaks of it as occurring in a gritty soil full of humus and always moist during the growing season), and it might do better with more moisture. It did best here in about half shade. The tendency

to produce bulblets on its wandering underground stems has made vegetative reproduction so easy that diseases have no doubt been accumulated in cultivated stocks to the point of debility since its introduction by Wilson in 1903. Stem-rooting, it may be planted six to eight inches deep.

The elegans group of lilies is too well known to occupy our attention for long. It is now quite well established that this group is of hybrid origin, perhaps coming from a number of crosses. In any case, there are a host of varieties known in gardens (one old list in my file has thirty-eight distinct ones), some of them being far better than the black-spotted, dark red one generally seen. For instance, the deep apricot Leonard Joerg and the lemon-yellow Alice Wilson are far more pleasing than most reds. There are some dwarf kinds, including the 9-inch President with lemon-yellow flowers and the 9-inch Princess with apricot flowers, that would serve the neighborhood grower well. In fact, considering ease of culture and the usefulness of elegans in general, it would pay most growers to make a collection of its best forms.

The Formosa lily, *L. formosanum* (*L. philippinense*), in both of its forms, Price's variety and Wilson's during recent years that they need variety, has had so much publicity not be mentioned, except as a matter of record and a reminder that they are worthy subjects.

Several years ago I saw at the Central Experimental Farm a hybrid, now known as Grace Marshall, orig-

inated by Miss Preston, which will surely become popular when stocks become plentiful. I do not recall the parentage, but I think that *L. willmottiae* was partly responsible for the beautiful child, a 4-foot plant with beautiful, broad-petaled, brown-spotted red flowers, generously produced.

We now come to a lily, *L. hansonii*, of which I could write to considerable length. Easy, long-lived, beautiful, it is one of the better kinds for the beginner and good enough for the specialist. Its only drawback in this section is the possibility of damage from late frosts, for it is among the earliest of lilies to venture forth in spring and takes careful watching to keep its growing points unharmed in the early year. Before June is far in its third week, *L. hansonii*, with its brown-spotted orange flowers of great substance, makes a lovely picture in its partly shaded home. It has done best here in a leafy soil, planted six to eight inches deep. It must be grown from divisions (happily, an easy and quite rapid matter) or from scales, because it does not, so far as I know, produce seeds, although it crosses readily with *L. martagon*.

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	Each	Each
	Per 100	Per 1000
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SPRAY WEEDONE when you have an infestation and use Weedone, or recommend it, when your customers' land must be cleared of weeds. Weedone is safe to use around livestock; it does not permanently sterilize the soil; it does not corrode metal spray-equipment; it does not stain or irritate the skin.

WARNING: Weedone does not kill grass, but it kills or injures 'most everything else. Use it in a greenhouse only when all plants are removed. Use it outdoors near valuable shrubs and trees only on windless days when you can control the drift of the spray.

WEEDONE, the new weed-killer containing 2-4D, will not only help to get you out from under the deep-rooted perennial weeds but also your customers. Weedone is highly effective against bindweed (morning glory), honeysuckle, poison oak, poison ivy, white top, dandelion, and most other noxious weeds that, at their best, ruin the looks of an impressive planting and, at their worst, cause nurserymen serious financial loss.

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L. henryi is another pleasant subject, because it is not only beautiful but also easy to grow in the garden. I suspect that it would be even more satisfactory in regions of heavy soils, for here it does not grow to the 8-foot stature spoken of in some quarters. Even the 5 or 6-foot height here, combined with the large flowers (green-lined, spotted, orange), which come in August, when lilies are not plentiful, gives the plant more than ordinary value as a garden ornament. It has done best here in part shade, planted up to eight inches deep. Propagation is quite rapid from bulb-lets, which are produced at the base of the stems.

Experience here with *L. humboldti* is not encouraging. In fact, I have never been able to establish the plant and long ago gave up the task. All I can say, then, is what I have learned from others. They tell me that it is best in a heavy soil (no doubt that is the explanation of my failures), planted about six inches deep. The flowers, orange-red with maroon spots, are lovely enough to work for.

L. humboldti's variety *magnificum* is a more pleasant subject, so far as my experience goes, being easier to grow, more permanent and productive of more flowers of larger size and richer color. I had a magnificent

[Continued on page 39.]

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On and Off the Nursery

By L. C. Chadwick

SOIL MANAGEMENT FOR PRODUCING QUALITY STOCK.

To sell nursery stock at a profit in the highly competitive market that almost certainly will develop within the next several years, it will be necessary for the nurseryman to produce high-quality stock in the shortest possible time. The production of high-quality nursery stock depends, among other factors, upon good soil tilth. Proper soil tilth often becomes a more important factor in the production of quality stock than applications of commercial fertilizer. In other words, good soil tilth should be a forerunner of most fertilizer applications. This is especially true where soils have been cropped continuously for a number of years.

By good soil tilth is meant the arrangement of the soil particles in such a manner that a granular or crumb structure exists. Such a granular structure signifies good soil moisture-air relationships. Soil granulation is not easily developed and, once obtained, it can be broken down easily by improper soil management. Freezing and thawing and microbiological activity are active forces in the production of soil granulation. Organic matter aids the stabilization of these granules, once formed.

The problems of good soil management within the nursery are much the same as those in general farm crop production. There is one essential difference, however, since with evergreens, and some other nursery plants, large quantities of topsoil are removed with the crop. This means that certain soil-building practices are particularly essential in nursery stock production. Crop rotation has long been considered an essential practice in the successful production of farm crops. While some semblance of a well conceived plan of crop rotation has been practiced by a few nurserymen, many have not given it careful consideration. A crop rotation schedule should be worked out by every nurseryman on the basis of his soil type and crops grown.

A well developed crop rotation plan for nurserymen includes the use of sod crops, cover or green manure crops and companion crops alternated with or accompanying the nursery stock. It is difficult to build up organic matter in a depleted soil. This may be possible by the use of permanent and semipermanent sod crops. Experimental evidence would seem to

indicate that, even with the extensive use of green manure crops, it is possible only to maintain the organic content of the soil. One should not expect to increase the organic matter of the soil, except tentatively, by plowing such crops as soybeans and rye.

While there is little precedent to follow, possibly the nurseryman can obtain the desired results by having the land in sod or green manure crops at least one-third of the time. The length of time that it takes to produce a salable crop of nursery stock, and the method followed in digging the crop, are factors influencing the rotation adapted. Below, some possible rotations are suggested. They can be modified to fit individual cases.

1. Nursery stock matures in two years.

Rotation:

- (a) Stock dug bare root.
Nursery stock—2 years.
Green manure crops (summer and winter)—1 year.
Nursery stock—2 years.
Green manure crops (summer and winter)—1 year.

Nursery stock—2 years.
Sod crop (grass and legumes)—2 years.
Repeat 10-year rotation.

2. Nursery stock matures in four years.

Rotation:

- (a) Stock dug bare root.
Nursery stock—4 years.
Green manure crops (summer and winter)—1 year.
Nursery stock—4 years.
Sod crop (grass and legumes)—3 years.
Repeat 12-year rotation.
- (b) Stock dug with ball.
Nursery stock—4 years.
Sod crop (grass and legumes)—2 years.
Repeat 6-year rotation.

3. Nursery stock matures in six years.

Rotation:

- (a) Stock dug with ball.
Nursery stock—6 years.
Sod crop (grass and legumes)—3 years.
Repeat 9-year rotation.

4. Nursery stock matures in eight years.

Rotation:

- (a) Stock dug with ball.
Nursery stock—8 years.
Sod crops (grass and legumes)—3 or 4 years.

"IT'S JUNE BUDDING TIME"

Our Seedlings and Grafts are sufficiently advanced to permit an intelligent quotation on all **Fruit Stock** for the 1946-47 season, and we would make some favorable prices on some early contracts.

We would welcome a few contracts on **Apricot, Plum and Peach**. We have a dependable bud source and will use extreme care in keeping our stock as described.

Thanks for the nice compliments on our stock last year. We will do our best to serve you well again.

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"YOU GET WHAT YOU BUY"

Space does not permit a discussion of suitable green manure and sod crops at this time. The most suitable types will vary in different sections of the country, and these can be checked with your state agricultural college and experiment station. It may be possible to discuss some of these in a future article.

NEW PLANT PATENTS.

The following plant patents were issued during May, according to Rummler, Rummler & Davis, Chicago patent lawyers:

No. 658. *Rose* plant. Alfonso C. Sodano, Bucks County, Pa. A new and useful variety of hybrid tea rose plant, characterized particularly by its prolific growth and production, its large, dark green foliage, its long, strong stems and its large, fragrant flowers of velvety dark red.

No. 659. *Chrysanthemum* plant. Alexander Cumming, Bristol, Conn., assignor to Bristol Nurseries, Inc., Bristol, Conn. A new and useful variety of chrysanthemum plant, characterized particularly by its bushy growth, its permanence and winter-hardiness and its early and long blooming season, in which effective quantities of semi-double, golden-yellow flowers are continuously produced.

No. 690. *Barberry* plant. Percy Brown, Jr., Gibraltar, Pa., assignor to Percy Brown Nursery, Gibraltar, Pa. A new and distinct variety of barberry plant of the general type of the *Berberis thunbergii*; characterized particularly by its dwarf growth, the bright golden color of its foliage and the absence of fertility of its seed pods.

No. 691. *Freesia* plant. Cornelius J. Van Bourgondien, Babylon, N. Y., assignor to Raymond Wilson, Carlsbad, Cal. A new and useful variety of giant type freesia plant, characterized particularly by the new combination of qualities including its healthy, vigorous growth; its thick, rigid, long stems; its early blooming season; its extremely fragrant, wide-open flowers of heavy texture and unusually good keeping qualities, and the cream overcast and vivid yellow throat and apothec of its primarily white flowers.

THE Knight Mail Order Co., Sesser, Ill., is adding a nursery stock department to its regular mail-order business.

HAVING been closed for the past four years, the West Jefferson Nursery, Gardena, Cal., is resuming operations.

JUNE 6 Pennsylvania nurserymen visited the Morris Arboretum, Philadelphia, under the direction of Dr. Henry T. Skinner, and held a dinner meeting afterward at the General Wayne hotel, Narberth.

PUBLICATION of a mimeographed monthly bulletin of the Pennsylvania Nurserymen's Association was resumed with the May issue. It was discontinued when the editor, Prof. R. P. Meahl, of the department of horticulture, Pennsylvania State College, entered the army.

AN 88-ACRE nursery and landscape service have been started at Hamilton, O., as Pennington Bros. Nurseries by Samuel G. Pennington, Hamilton, and Charles C. Pennington, Connersville, Ind. Their father was in the nursery business for a number of years.

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Coming Events

MEETING CALENDAR.

June 18 and 19, Oregon Association of Nurserymen, Oregon State College, Corvallis.

June 20 and 21, North Carolina Association of Nurserymen, Wrightsville Beach.

June 27 and 28, National Mail Order Nurserymen's Association, Chicago.

July 5 and 6, West Virginia Nurserymen's Association, Hotel West Virginia, Bluefield.

July 14 to 18, American Association of Nurserymen, Ritz Carlton hotel, Miami Beach, Fla.

July 15, National Landscape Nurserymen's Association, Ritz Carlton hotel, Miami Beach, Fla.

August 6 and 7, Pennsylvania Nurserymen's Association, Penn-Harris hotel, Harrisburg.

August 27 to 29, Texas Association of Nurserymen, Adolphus hotel, Dallas.

August 27 to 30, National Shade Tree Conference, Hotel Statler, Boston, Mass.

September 23 to 25, California Association of Nurserymen, Berkeley.

October 8 to 10, United Horticulture, Wade Park Manor, Cleveland, O.

NORTH CAROLINA OUTING.

Outdoor activities will be the feature of the program for the annual summer meeting of the North Carolina Association of Nurserymen to be held June 20 and 21 at the famed Ocean Terrace hotel, Wrightsville Beach, announces President James Ferger.

Tours have been arranged to the shipyards of the North Carolina Shipbuilding Co. and to old Greenfield park, noted for its extensive azalea and dogwood plantings. Fishing, boating and surf bathing are among the other recreations to be enjoyed. Families of members are cordially invited to share in these good times.

There will also be a meeting of the North Carolina chapter of the American Association of Nurserymen to make arrangements for attendance at the Miami victory convention.

PENNSYLVANIA PLANS.

The summer meeting of the Pennsylvania Nurserymen's Association will be held August 6 and 7 at the Penn-Harris hotel, Harrisburg. President Wilbur Nisley has appointed Dick Guldemon, Blue Ridge Nursery; John Guldemon, Susquehanna Gardens, and Yngve Alsstrom, Colonial Nurseries, to serve on the arrangements committee.

A tentative program has been arranged for a nurserymen's conference to be held July 22 to 24 at

Pennsylvania State College, sponsored by the department of horticulture. The conference is open to all nurserymen and their employees. Among the topics to be discussed are the identification of shade trees, principles of planting design, insect pests and their control, the identification of evergreens, diseases affecting nursery plants and their control, planting design for small properties, the identification of flowering shrubs, and fertilizing and soil management problems in the nursery.

PLAN TEXAS CONVENTION.

Members of the Dallas Nurserymen's and Landscape Association met May 28 at the Ross avenue retail flower store of the Lang Nursery & Floral Co., Dallas, Tex., to hear about and to discuss plans for the first post-war convention of the Texas Association of Nurserymen to be held August 27 to 29 at Dallas.

The first day of the convention will be devoted to a board of directors' meeting in the morning, a formal session in the afternoon and a cocktail and get-acquainted party in the evening. The second evening there will be a banquet at 8 o'clock. Time will also be allotted for an automobile

ride to see some of the city's showier landscape settings.

The complete program will be announced later, but Otto Lang, program chairman, said that emphasis would be placed on salesmanship, advertising and credits. Richard P. White, executive secretary of the American Association of Nurserymen, will repeat his illustrated lecture originally given at the national meeting at Chicago. W. B. ("Smoke") Ballew, of the Dr. Pepper Co., Dallas, is also expected to speak on salesmanship. Kenneth Haysler, manager of the Cloverset Flower Farm, Kansas City, Mo., will discuss salesmanship as applied more directly to the nursery business.

HOTEL LA SALLE FIRE.

Shortly after midnight, June 5, fire swept the Hotel La Salle, Chicago, scene of the meetings of the Illinois State Nurserymen's Association and several of the conventions of the American Association of Nurserymen, as well as national and regional meetings of other nurserymen's organizations. The National Mail Order Nurserymen's Association had scheduled its annual convention there for June 27 and 28.

Of unknown cause, the fire started

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B&B 2 to 3, 3 to 4 ft.

All grown in our high mountain valleys, which gives them unusual stamina. Write for list and prices. Fall or spring delivery.

TREADWELL NURSERY CO. Great Falls, Mont.

Colorado Spruce
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"The Care of Trees"

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The lovely**Yellow
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SUB-ZERO HYBRID TEAS

Large and beautiful as any.
Easy to grow and long to live.
Save replacement expense.
Also Yellow and Orange Climbers.

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LINING-OUT STOCK
OUR SPECIALTY . . .

Shade Tree Whips . . . a
timely finished product saving
2 to 4 yrs.' growing effort
. . . excellent variety.

A very complete line of
ORNAMENTAL TREES, SHRUBS
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THE GOLD CHESTNUT NURSERY
Chestnut Tree Headquarters

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Splendid Stock

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on the main floor near the Silver Bar and the elevators and quickly spread through the lobby and up the elevator shafts and stairways as high as the seventh floor, leaving the first two floors a mass of charred ruins. Thick black smoke filled the hallways and rooms up to the twentieth floor. More than fifty persons were killed and over 200 were injured by the flames or in attempts to escape the conflagration. It took firemen nearly two hours to bring the blaze under control.

FERTILIZER OFFSETS
2,4-D CHECK.

When one of the several 2,4-D weed killer spray preparations now on the market is used to rid lawns of dandelions or plantains the growth of the grass will be checked somewhat following the spraying.

The grasses recover, however, and in really weedy lawns the elimination of the weed competition favors better growth of grass. The result is that after about a month the effect of the weed-killing chemical wears off and the growth of the grass gains.

Experiments last year by United States Department of Agriculture investigators showed good results from fertilizing weedy lawns with a nitrogen fertilizer (urea applied at the rate of sixty pounds to the acre). The two chemicals did not interact and injure each other, and the fertilization did not preserve the weeds or encourage their growth. Instead, the urea acted on the grass and stimulated growth so that the check caused by the 2,4-D was less objectionable.

An application of sixty pounds to the acre is about the safe limit for strength of urea, since in the tests a spray with urea at the rate of ninety pounds to the acre burned the grass severely.

J. H. BURTON, Hyattsville, Md., recently announced the birth of his fourth son.

LEON KARNES, ex-serviceman, has opened the Greenwood Gardens, at Greenwood, Ind.

HENRY KLEINE has resigned his position with I. E. Ilgenfritz' Sons Co., Monroe, Mich., to open the Newport Nursery Co., Newport, Mich.

WALTER J. LUCZAI has started a small evergreen nursery at Hazardville, Conn. He also has in his greenhouse 4,000 chrysanthemums, which he plans to sell at wholesale in the fall.

WE OFFER FOR
1946-47 SEASON

RED RASPBERRY, No. 1 Suckers and Transplants. Specializing in **Indian Summer, Taylor and Chief**. We can at last offer the **Indian Summer Everbearer** in quantities to warrant your featuring them to your trade.

BLACK AND PURPLE RASPBERRY, best varieties in No. 1 tips.

GRAPEVINES, all common varieties in 2-yr. No. 1 and 1-yr. No. 1.

BLACKBERRIES, CURRANTS and other small fruit plants.

We will be represented at the A.A.N. convention at Miami.

H. E. CONGDON NURSERY
North Collins, N. Y.
KOSTER NURSERY

Division of Seabrook Farms

Wholesale Nurserymen**BRIDGETON, N. J.**

Write for wholesale price list of
lining-out and specimen stock
in better evergreens and shrubs.

HESS' NURSERIES
Mountain View,
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HEMLOCKS**KALMIA, RHODODENDRON, AZALEA****CURTIS NURSERIES****CALLICOON NEW YORK**
NORTHERN COLLECTED EVERGREENS
FERNS
PLANTS**SHRUBS**
WILLIAM CROSBY HORSFORD
Charlotte, Vermont

PRINCETON NURSERIES
of PRINCETON, N. J.
SUPERIOR**Hardy Ornamentals**

OBITUARY

William H. Judd.

William H. Judd, noted propagator at the Arnold Arboretum, Boston, Mass., died suddenly May 22 at Brookline, Mass., at the age of 59. He had attended the meeting of the Gardeners' and Florists' Club of Boston the evening before and had taken an active part in the proceedings.

Born in the south of England, Mr. Judd spent several years at Kew Gardens. He was selected to come to the Arnold Arboretum as assistant to the late Jackson Dawson, and upon Mr. Dawson's death he took complete charge of propagating.

Mr. Judd visited England and many other parts of Europe several times in search of new plant material for the Arnold Arboretum. His last visit was in 1939, when the outbreak of the war in Europe made it extremely difficult for him to secure passage home. In recent years he had made extensive tours of the United States and Canada in search of suitable material. He was widely known among estate owners and nurserymen, both in this country and abroad.

Soon after his arrival in the United States more than thirty years ago, Mr. Judd joined the Gardeners' and Florists' Club of Boston. He served as its president and was on the executive committee for ten years. He was also active on various committees of the Massachusetts Horticultural Society and was a member of the Horticultural Club of Boston. For years he acted as secretary-treasurer of the Kewites of America, making arrangements for their annual get-togethers. He was well known as a lecturer on trees and shrubs and had given many talks before horticultural organizations, nurserymen's associations and garden clubs.

A member of the Royal Horticultural Society, he was awarded its Veitch memorial medal two years ago for his work with rhododendrons. He was a member of the Masonic lodge and other orders.

Mr. Judd was married, but his wife preceded him in death by several years.

Charles Antone Pfeiffer.

Charles Antone Pfeiffer, president of the Pfeiffer Nursery, Winona, Minn., died May 26 at his home after an illness of six months. He was 79 years old.

Mr. Pfeiffer was born October 10, 1866, at Wabasha, Minn., and moved to Winona in 1885. He was married

in 1887, celebrating his golden wedding anniversary in December, 1937. Mr. Pfeiffer was then with a grain company headed by H. J. O'Neill, at Winona, serving as superintendent of the local terminal of the firm. In 1909, he established the Pfeiffer Nursery.

A member of the Minnesota Peony and Iris Society, Mr. Pfeiffer was also a member of the National Gladiolus Society and was affiliated with Winona lodge of Masons.

Survivors include his widow; three sons, Loyde, Winona; C. Whit, Los Angeles, Cal.; and Dr. R. H. Pfeiffer, Duluth, Minn.; three sisters, and one brother.

Anton J. Bulk.

Anton J. Bulk, manager of the nurseries and the landscape department of Wachendorff Bros., Atlanta, Ga., died last month following a 3-year illness. He was 50 years old.

Mr. Bulk was a native of Holland, and after acquiring a thorough horticultural and landscape education, he spent his life in his chosen profession. For a number of years prior to his association with Wachendorff Bros. he conducted a landscape and nursery business at Linden, N. J.

Mr. Bulk is survived by his widow, Mrs. Dejeune Veal Bulk, of Atlanta,

and a brother, Jac Bulk, owner of Bulk's Nurseries, Babylon, L. I., N. Y.

Edward W. Breed.

Edward Woodbury Breed, nurseryman and florist at Clinton and Lancaster, Mass., died May 8 after a prolonged illness. He was 85 years old.

Born at Lynn, Mass., in 1861, Mr. Breed entered the florists' business in 1875 at Lancaster while still in high school. In 1883 the firm was moved to Clinton, where he conducted it for thirty years. In 1902 Mr. Breed established the Four Ponds Nursery there, eventually devoting his entire time to landscape developments of public and private estates throughout New England. For eight years he served as forester for the state highway commission.

Active in horticultural organizations, Mr. Breed was a charter member of the Worcester East Agricultural Society and for five years was president of the Worcester County Horticultural Society. For twenty-

LAKE'S SHENANDOAH NURSERIES Shenandoah, Iowa

*Wholesale growers of
a fine assortment of*

GENERAL NURSERY STOCK

Your inquiries will be appreciated.

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McMinnville, Tenn.

ORNAMENTAL SHRUBS
SHADE TREES, VINES
FOREST TREE SEEDLINGS
LINING-OUT STOCK

FRUIT TREES AND SMALL FRUITS

HARRISON BROTHERS NURSERIES

G. Hale Harrison, General Manager
BERLIN, MARYLAND

ROSES and SHRUBS

Growing and blooming in containers for Summer sales for the Southwestern nursery trade near enough for truck delivery or driving in for them. They will help to meet the demand for planting of the rapidly increasing number of new homes. In stock at our Dallas Warehouse and at Nursery.

Wholesale Only

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Scottsville, Texas

OUR THANKS

We wish to thank all of our customers for their business in 1946.

We feel that we can serve you still better in 1947 with all kinds of Forest Evergreens and Flowering Shrubs.

Write for our fall price list.

JOHNIE McCARVER & SONS
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WANTED

1000 Matched Evergreens, *Tsuga Canadensis*, *Juniper Canadensis*, or equivalent. Quote prices for late summer delivery. Chicago area. 3 to 3½ ft. or 3½ to 4 ft. Address Box No. 443, care of American Nurseryman.

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Established 1875

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GINKGO

NORWAY MAPLE

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SWEET GUM

THURLOW WILLOW

WELL GROWN EVER-
GREENS, in variety.**Northern-grown Stock**Send
for
Price
List.**J. V. BAILEY NURSERIES**
St. Paul 6, Minn.**ORNAMENTALS****TREES SHRUBS
EVERGREENS**Wholesale growers of a
general assortment for
the best Landscape Plantings**BRYANT'S NURSERIES**
PRINCETON ILLINOIS**BUXUS SEMP. WELLER**(Weller's Hardy Northern Type)
Only Boxwood proved hardy in Northern
States for Twenty Years.

Ask for our Perennial catalog.

WELLER NURSERIES CO., Inc.
Leading Perennial Growers
Holland, Mich.**Wholesale growers of
SMALL FRUIT PLANTS**Grapes, Currants and Raspberries—
our specialty.
Hydrangea P. G.**FOSTER NURSERY CO., INC.**
69 Orchard St. Fredonia, N. Y.**BURTON'S**HEADQUARTERS FOR
EVERGREEN GRAFTS, TRANSPLANTED
EVERGREENS, SHRUB LINERS.
Write!
RARE ITEMS YOU DO NOT
FIND IN MOST LISTS!
HILLTOP NURSERIES
CASTOWN, OHIO

nine years he belonged to the Society of American Florists, and he held a life membership in the Massachusetts Horticultural Society. He also held long memberships in the Massachusetts Nurserymen's Association, the American Rose Society, the American Forestry Association and the Horticultural Club of Boston and was a fellow of the Royal Horticultural Society of London.

Surviving Mr. Breed are his widow, Mrs. Sarah Laird Breed; a son, Ralph C. Breed; one sister, and a grandson.

Martin Cooper.

Martin Cooper, a tree specialist and nurseryman at Yonkers, N. Y., died May 21 in a New York city hospital. He was 43 years old.

A native of Amsterdam, Holland, Mr. Cooper came to this country in 1924. He was formerly assistant superintendent for Yonkers Nursery Co., Inc.

Surviving are his widow, Mrs. Gertrude Schellhammer Cooper; two sons, Martin, Jr., and Walter Cooper; a daughter, Joan Cooper; his mother, a sister and two brothers.

Abraham L. Gilbert.

Abraham L. Gilbert, Springfield, Mass., died May 15 after a long illness. He was 84 years old. Born at Cummington, Mass., Mr. Gilbert had lived at Springfield for over 65 years and was engaged in the nursery business for many years.

He leaves two sons, Winthrop, Springfield, and James H., Pasadena, Cal.; four grandchildren, and two great-grandchildren.

FLORIDA MEETING.

More than 400 persons attended the twenty-fifth anniversary meeting of the Florida State Florists' Association May 27 and 28, at the Hillsboro hotel, Tampa.

The nursery group heard Dr. H. H. Hume, of the University of Florida, give a talk on the history of camellias from 1565 to the present. He discussed new camellias, sports, changes in names, habits of growth, fertilizers, rooting of cuttings and the great and growing popularity of camellias.

Officers elected for the nursery group of the association are Charles Wedding, St. Petersburg, president; Jesse Johnson, Largo, vice-president, and Harry M. Smith, Winter Garden, treasurer.

The 1947 convention will be held at Miami.

ALBERT BEHNKE, of Behnke Nurseries, Inc., Beltsville, Md., has added a large greenhouse.



Growers of a complete
line of deciduous and
coniferous species.

JEWELL NURSERIES, INC.

Lake City, Minn

EVERGREENS

Highest quality northern-
grown evergreens.

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NURSERIES**P. O. Box 1747
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Nurseries at Brown Deer.

5000 JUNIPERS, B&B

F.O.B. trucks at nursery.

Pfitzeriana, 2 to 3 ft. and 3 to 4 ft.

Hibernica, 3 to 4 ft. and 4 to 5 ft.

Ashfordii, 2 to 3 ft.

Andorra, 1 1/2 ft.

Hill's Golden Pfitzer, 2 to 3 ft.

One block of 2000 assorted evergreens
at Ashford, N. C. A-1 condition; half
in B&B sizes. Close to quick trans-
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**LINING-OUT EVERGREENS
and AZALEAS**

Sturdy Plants.

DUNLAP NURSERIES
Knoxville 16, Tenn.

Grapevines, Currant Roots,
Currant Cuttings and Berry Plants.
Small Fruit Specialists.

WEST HILL NURSERIES
Fredonia, N. Y. Since 1875



CALIFORNIA ASSOCIATION OF NURSERYMEN

JACK LINCKE, Executive Secretary

215 West Seventh St., LOS ANGELES 14, CALIF.

JOB METHODS SYSTEM.

Inaugurating a plan which is intended to extend to all chapters of the California Association of Nurserymen, Executive Secretary Jack Lincke presented R. C. Thomas and Glenn McNeilly at the meeting of the Los Angeles chapter, May 22, to talk about and demonstrate the training-within-industry job methods instruction system which they supervised in the Los Angeles area during the war.

Widely used throughout the war period in industry, the job methods program achieved production miracles. It is a work simplification process which invariably results in a greater output with fewer employees and without the addition of new equipment.

It is apparent that with the wage increases resulting from the automotive and steel strikes and those that are likely to come from the coal and railroad strikes, similar increases will extend into other industries and undoubtedly will result in an appreciably higher pay rate being demanded throughout our economic structure.

The nurseryman is in an unfortunate position in that a large segment of his industry comes under an agricultural classification and is in the analogous position of having his field workers' rates frozen at \$2,400 a year, while hourly pay is increasing in every business surrounding him. The cost of garden tools and similar merchandise which he sells is bound to increase as higher wage rates are reflected in the manufacturing industries. The pay of office help is also rising. In fact, the entire cost of the nurseryman's business is going up.

This leaves the nurseryman with the obvious alternative of increasing his prices to the public; however, it is not believed that this is the best solution to the problem. For a great many years, American manufacturing industries have consistently reduced the prices of their products despite increasing wage costs by finding production short cuts which enable them to turn out more products with less help and at a lower unit cost. As an example of this, a concern in the east which manufactured welding equipment charged \$350 for its product fifteen years ago. Until the war start-

ed, it was selling a highly improved welder for \$79.50.

If the nurserymen will follow this same pattern, they can absorb a certain amount of their rising costs and undoubtedly gain a great deal of consumer friendship. For an industry to maintain its cut prices in this inflationary period should result in the creation of incalculable good will among the buying public.

Several months ago, all members of the California Association of Nurserymen were furnished with an excellent, brief and simple cost-accounting plan. This was designed to enable them to determine their costs readily, find the leaks and nonprofit items. If, in conjunction with this, they would use the job methods program, they would find the results surprising and they should be enabled to absorb much of their increase in

costs, maintain their present margin of profit and not find it necessary to increase their consumers' prices.

There is no mystery about the formula or the application of the job methods procedure. It is a concise, simple and systematic method of examining the manner in which every job is performed in the field, on the sales lot and in the office. Any amateur can use it successfully.

When Mr. Lincke was industrial relations director for Continental Can Co., he used job methods in straightening out an inefficient and troublesome personnel department in one of the plants. As a result of its application, the percentage of error was reduced to less than one per cent and sufficient people were eliminated from the department to save the corporation \$7,000 a year in salaries during the first year of the improved operation.

Should there be sufficient response from members of the Los Angeles chapter, it is planned to have Mr. Thomas and Mr. McNeilly present their demonstration at meetings of the other six chapters in the association.

Despite the fact that the new nurserymen's compensation insurance

Better Business with Better Lawns

It's smart business on your part to discourage customers from planting a lawn now. It just won't live through the summer heat. If some persist, however, offer them rye grass — it will give them a satisfactory temporary lawn. Early Fall is Nature's own planting time. That is the time to sell Woodruff's TURF-MAKER for a permanent, luxuriant lawn. Better check your stocks today

F. R. A. SONG, INC.
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Milford, Conn., Toledo, Ohio
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Send for Our Seed List.

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"Supreme" Quality

SEEDS — PLANTS — BULBS

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"GRO-QUICK" ELECTRIC SEED BED HEATER

BOTTOM HEAT CAN'T BE BEAT
For early plant starting with high germination and fast growth. Invaluable for rooting cuttings. Soil heating cable and thermostat for plant benches and coldframes. Detailed instruction sheet mailed free. **GRO-QUICK, 326 W. Huron St., CHICAGO, 18.**



MYROBALAN SEED

LOVELL PEACH PITS

Nation's Leading Source

Write today for quotations.

California
NURSERY COMPANY

Niles, California

SEEDS

**Collectors of Tree, Shrub and
Wild Flower Seeds**

Crude Drugs and Ornamentals

E. C. MORAN Stanford, Mont.

WRITE US ABOUT—

- Evergreen Liners
- Shade Trees
- Specimen Evergreens
- Flowering Shrubs
- General Assortment of Stock.

SHERMAN NURSERY CO.
Charles City, Iowa

THANK YOU

At the close of our Spring season we wish to thank our good customers for the nice business they have given us.

We expect to have around 50,000 Peach; 75,000 Apple, Pear, Plum and Apricot to offer for Fall and Spring shipment.

Your Want List will be greatly appreciated.

EGYPTIAN NURSERY & LANDSCAPE CO.
Farina, Ill.

SMALL FRUIT PLANTS

Still available: Black Raspberry tips, St. Regis Raspberries, Blackberries, Boysenberries, Rhubarb, Asparagus, 1-yr. Niagara Grapes, large quantities of Strawberries in spring and fall varieties. Write for quotations.

Also offering good supply of Adams and fair amount of Rubel and Rancocas Blueberries, 1-yr. rooted cuttings, 35c ea.; \$36.00 per 100; \$250.00 per 1000. Rubel 2-yr. plants, 45c ea.; \$60.00 per 100; \$580.00 per 1000.

L. J. RAMBO'S WHOLESALE NURSERIES
Bridgman, Mich.

**SMALL FRUIT PLANTS
and
VEGETABLE ROOTS**

We grow for the wholesale trade only.

KRIEGER'S WHOLESALE NURSERY
Bridgman, Mich.

We wish to purchase...

Evergreens, Fruit Trees, Shrubs, etc.

Send your surplus list to

THE PONTIAC NURSERY CO., Romeo, Mich.

**EVERGREENS**

Growers of Quality Evergreens
Lining-out Stock a Specialty
Write for Trade List

EVERGREEN NURSERY CO.
Established 1864 • STURGEON BAY, WIS.

group plan was not presented to the association until the middle of April, the executive secretary reported that the group's gross annual premium has already exceeded \$15,000. State compensation insurance officials have pointed out that this sum is greater than that with which most groups start and is of sufficient size to absorb quite a few accidents and still result in a substantial premium refund to the members at the close of the insurance year.

J. Lincke, Sec'y.

**LOS ANGELES CHAPTER
TOLD OF TRAINING PLAN.**

With seventy-six members present, the Los Angeles chapter of the California Association of Nurserymen held its monthly dinner meeting May 22 under the direction of President Stuart Henson.

Highlighting the meeting was a talk and demonstration of the training-within-industry job methods course which achieved outstanding production results during the war.

Since V-J day, the government has abandoned the program, but the Los Angeles directors who supervised the instruction throughout this area during the war have formed a private company to carry on the work on a fee basis. The organization is headed by R. C. Thomas and Glenn McNeilly, who spoke at the meeting. Mr. McNeilly outlined the inception of the training-within-industry courses which were started by the heads of America's leading corporations to obtain maximum postwar production.

Although the job methods system is thoroughly known throughout industry, its presentation to the nursery business was new. The system consists of a condensation of time and motion study simplified to the point where anyone can understand and apply it. Its objective is work simplification, or, in other words, the achievement of a greater volume of production with existing working forces, tools and equipment, without making additions to either.

In a great many industries, production of critical items was increased as much as 200 per cent through the use of the job methods formula. Virtually all of this production increase was achieved without the addition of employees and equipment and, in most cases, resulted in a greater output with fewer employees.

After dinner members were entertained with several selections sung by Ruth Jordan, Metro-Goldwyn-Mayer student starlet.

A contest was held for a new-type charcoal broiler, which was donated

**1946 CROP
LOVELL PEACH PITS**

For Early Fall Delivery

Write for Quotations

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KELLY BROS. NURSERIES, INC.
Dansville, N. Y.

**RED LAKE CURRANTS
RED RASPBERRIES
Hansen's BUSH CHERRY
PARADISE ASPARAGUS**

ANDREWS NURSERY CO.
FARIBAULT, MINN.

**ATTENTION
NURSERYMEN!**

We are now booking orders for Apple, Peach, and Grape for fall shipping. Have a good supply of 2-yr. Apple, 1-yr. Apple, a few thousand 2-yr. Grape, several thousand 1-yr. Grape, and should have a good supply of June-bud Peach. Many other items to add later. About 7,500 nice Evergreens 1 1/2 ins. to 6 ft. Let us quote you prices on anything you will need that we have.

ROLLERS WHOLESALE NURSERY
Rogers, Ark.

Book orders early.

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SNEED NURSERY COMPANY**

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SMALL FRUIT PLANTS

Evergreens — Shrubs
Asparagus — Rhubarb

Send for Complete Trade List

W. N. SCARFF'S SONS
New Carlisle, O.



Wholesale growers of the best
Ornamental Evergreens,
Deciduous Trees,
Shrubs and Roses.

Write for our current trade list.

THE KALLAY BROTHERS CO.
Painesville, Ohio

by Stuart Henson. Since he had traveled all the way from Redlands to attend the meeting, H. C. Hagy was asked to choose the winning name, and much to his embarrassment, he picked his own. This prompted him to turn the broiler back to the chapter to be offered at the next meeting. The contest netted slightly in excess of \$60.

The state association president, Paul Moulder, his brother John and their wives attended the meeting. The dinner tickets were sold by Ardie Babajian, who is with the Downey Fertilizer Co.

The chapter inaugurated a new custom at the suggestion of Esther McConnell, secretary, by which members, guests and firm representatives sign a bound book as they purchase their dinner tickets. This gives the chapter a complete record of those who attend the meetings and the firms which they represent.

Esther McConnell, Sec'y.

SAN DIEGO CHAPTER MEETS.

H. Spaulding presided at the monthly meeting of the San Diego chapter of the California Association of Nurserymen in the Chamber of Commerce building, Old Town, in the absence of the president, Frank James, who was ill in the hospital.

Judge Mitchell, of Oceanside, who was introduced by A. P. Carlton, secretary, is in charge of the floricultural department of the state fair. He said that the aim of his department was to have the best show possible, so that the board of directors would consider such an exhibit a vital part of the fair and would give a permanent building for such a purpose. He stressed the point that enthusiastic cooperation is needed by all in the nursery business. Mr. Salisbury spoke for a few minutes concerning his duties regarding the fair. He is in charge of planning the space. The space allotted to the floricultural exhibit is 32x46 feet, with four pools of water, one in each corner. Suggestions were then before the chair.

Andy Carcano offered to draw a suitable landscape sketch, and F. Jaggi donated his services to the association to prepare the exhibit before the opening of the show. Mr. Carlton will furnish a man to aid him and will give the use of his lath house on Moreno boulevard to keep all plants, etc., to be used at the fair. W. Parker will take all plants to Del Mar and return them after the fair. All nurserymen will be contacted for the necessary equipment.

Mr. Spaulding spoke for a few

moments of the Blue Cross insurance plan. Since there are forty-three paid members, it would be necessary for twenty-two to apply.

An application for membership from H. Miller, of Cardiff, was approved. A list of prospective members was read, and volunteers agreed to call on them.

A. P. Carlton, Sec'y.

TRI-COUNTY MEETING.

The Tri-County chapter of the California Association of Nurserymen held its forty-eighth meeting May 24, at the El Cielito restaurant, Santa Barbara, with Walter Knecht presiding.

Mavro Warren reported that it was fairly certain that the \$40,000,000 appropriation for the investigation of overpay in industry was now being put to use. It was further reported that the Bureau of Internal Revenue officers have been investigating employment records.

The secretary of the Tri-County chapter read a letter from Jack Lincke stating that the poll of members at the previous meeting indicated a preference for a combination business and social meeting.

President Knecht asked that more members send their wage-survey forms to the secretary. He expressed the need for publicity for the chap-

ter and recommended that the secretary notify the Santa Barbara Daily News and the Ventura Star-Free Press of the activities of the Tri-County chapter.

Regarding the subject of advertising cuts and letterheads, it was resolved that the executive secretary, Jack Lincke, be notified that the Tri-County chapter feels that new members may be induced to join the state organization by means of letterheads advertising the association.

The chapter requested the board of directors to study and draft new bylaws for the Tri-County chapter to be approved at the next meeting.

President and Mrs. Knecht donated a charming terrarium bowl, won by Leslie Murphy. The proceeds were presented to Mrs. Opitz for her aid to the secretary.

Mr. Hume suggested that any nurserymen interested in obtaining 5-gal-



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FRUIT TREES and GRAPEVINES

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Headquarters for...

General Nursery Stock
Catalog this fall.

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RUBBER Products
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KATKISH BRAND
Rubber Bands
Apex
Bridging Strips
Cladding
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Footing
Gloves
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Belts
More

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319½ Georgia St., Louisiana, Mo.

Loss and damage claims against railroad and express companies collected.

Freight bills audited.

Past due notes and accounts collected.

Well known to the nurserymen of the country.

Reference: Bank of Louisiana.



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Cuttings
and Seeds
Bulbs and Tubers

Scientific Growth Stimulant

Write for Free Booklet

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HAUCK FLAME



KILLS WEEDS

2000° F controlled heat quickly, easily destroys weeds, roots, brush, poison ivy, wild morning glory, Canada thistle, other unwanted growths. Many uses: splitting rocks, burning stumps, sterilizing poultry houses, burns kerosene. Does the work of 4 men. Safe, easy to use. 10 day trial. Satisfaction guaranteed. Free catalog.

HAUCK MFG. CO.

121 Tenth St., Brooklyn 15, N. Y.

lon cans of San Gabriel silt get in touch with him.

Vice-president Arthur Verhelle introduced the guest speaker of the evening, Mr. De Forrest, of Santa Barbara, who talked about "Plants Suitable for Landscaping." Mr. De Forrest suggested that the nurseryman educate the consumer to desire unusual plants for landscaping. Then it will be profitable for the average nurseryman to grow rare plants. Specimens in containers are better than balled plants. Plants which give an immediate effect when planted and are yet slow-growing are best. A few of the more rare plants which grow well in this area were mentioned.

Karl W. Opitz, Sec'y.

CALIFORNIA TEST GARDEN.

A far western project, a plant hybridization and test garden, is being developed in a natural setting of native California trees, one-half mile from the Luther Burbank experimental station, near Santa Rosa and Sebastopol in the west-central part of California, by William E. Silva, of Sebastopol, formerly of Silva's Rare Plant Gardens, at Trazana.

Hybridization of various types of plants is continually going on. More than 1,000 strawberry seedlings selected from two years' work are producing some good types of fruit. A great many new crosses in young boysenberries, mammoth Himalaya berries, raspberries and evergreens are now in their second year.

The rose situation is much different. More than 500 crosses were made last year, with the result that a great many new colors and shades have been developed. Hybridization of many new combinations is being carried on at the present time.

One of the new developments is a dark rose, a cross between Night and Victoria Harrington, much fuller and a little darker than Night. There are a new pure white rose with long buds and a 45-petaled rose sired by Frau Karl Druschki and McGredy's Yellow. Various new colors, shades and blends have been developed.

In the same project is a 2-acre sloping hill planted with pines, oaks and madrone trees, where a natural setting is being established for a camellia arboretum. Doty & Doerner, Inc., Portland, Ore., supplied the initial shipment of 150 camellias for the project.

Another project is the hybridization of callas in new colors, and a great many plants are already growing there. Tuberous and fibrous be-

[Continued on page 31.]

PORTLAND WHOLESALE NURSERY CO.

306 S. E. 12th AVENUE

Avery H. Steinmetz

PORTLAND, OREGON

Quality Stock

CONIFERS AND BROAD-LEAVED
EVERGREENS
SHADE AND FLOWERING TREES
FRUIT TREE SEEDLINGS
FRUIT TREES
DECIDUOUS SHRUBS
VINES AND BULBS
PORTLAND ROSES

Sorry, no catalog until
September 1.

The supply of stock is extremely limited, but we will do the very best we can to take care of our regular customers.

Write for our Catalog

A. MCGILL & SON

FAIRVIEW, OREGON

Wholesale Only

GOOD WESTERN-GROWN NURSERY STOCK

Fruit Tree Seedlings
Flowering Ornamental Trees
Shade Trees

Grown right and packed right.
Combination carloads to Eastern
distributing points will save you
on freight.

MILTON NURSERY CO.

A. Miller & Sons, Incorporators

MILTON-Since 1878-OREGON

We Offer for Season 1946-47

Shade Trees

Flowering Ornamental Trees

Fruit Tree Seedlings

Send Us Your Want List

We ship all orders in Combination Carlots to Eastern
distributing points at minimum
freight cost.

AS ALWAYS— OREGON'S BEST SOURCE of GOOD ROSES

PETERSON & DERING

Wholesale Rose Growers
Scappoose, Oregon

DOTY & DOERNER, Inc.

6691 S. W. Capitol Highway

Portland 1, Oregon

Wholesale Growers
of
General Nursery Stocks

1000 Specimen Dwarf Boxwood, 18 to 24 ins.
500 Green Aucubas, 2 to 3 ft.
150 Dwarf Alberta Spruce, 2 to 3 1/2 ft.
50 Juniper Meyeri, 3 to 4 ft.
All stock with perfect fiber roots.

F. A. DOERFLER & SONS
Salem, Ore.

NOTICE

Limited production makes it impossible to book orders for new customers.

HOWARD ROSE COMPANY
Hemet, California

BALED SHINGLE TOW

(CEDAR SHAVINGS)

WM. A. JOHNSTON

408 Postal Bldg., Portland 4, Ore.

SHINGLE TOW

(Baled Cedar Shavings)
Immediate shipment carload lots.

MONARCH SHINGLE CO.

P. O. Box 37 North Portland, Ore.

CLASSIFIED ADS

Five lines, \$1.00,
each additional line 20 cents,
per insertion.

BULBS

CANNAS—Select stock, 200,000 President, rich scarlet, 4 ft., green foliage, carefully grown under our personal supervision, guaranteed true to name, Strong, 2 to 5-eye divisions, liberally graded, \$8.00 per 100, \$60.00 per 1000.

MRS. CHARLIE ROBINSON, Greenville, Ga.
DAFFODILS, large hardy, well balanced mixture of Golden Spur, Orange Phoenix, Von Sion, Tenby Obvallaria, White Lady, Jonquil Orange Queen, Georgia-grown, \$25.00 per 1000, F.O.B. **MRS. RUTH GABLE**, Haralson, Ga.

EVERGREENS

ROOTED CUTTINGS
We are now booking orders for rooted cuttings as follows:
\$9.00 per 100; \$85.00 per 1000.

Taxus baccata repandens
T. cuspidata capitata
T. cuspidata nana benina
T. cuspidata nana brevifolia
T. media (intermedia)
T. media hicksii
Ilex crenata convexa (syn. *bullata*)
Juniperus pfitzeriana
I. excelsa stricta
Thuja occidentalis elegantissima
T. occidentalis pyramidalis
T. occidentalis pyramidalis

GREENBROOK NURSERIES, INC.
R.F.D. 2, Bound Brook, N. J.

EVERGREEN LINERS, many varieties; Roots of all kinds; Seeds; Shade Tree Whips; Flowering Shrubs, lining-out size; Calif. Privet; Mums; Berry Plants; Azaleas and Rhodod; Blueberries, for the trade within commuting distance. We have the most up-to-date and largest supply of large plants of all kinds, ready dug and burlapped, ready to go; no waiting or holding you up when you get here. Prices are right.

W.M.E. WENTZELL EVERGREEN NURSERY
Sewell, N. J. Phone: Wenonah 49 R1

NEW INTRODUCTION
AZALEA HINO-CRIMSON
Showy, clean, crimson-red, nonfading flower. Large, glossy, dark green foliage. Excellent grower with sturdy branches. Good forcer. A cross between *Hinodegiri* and *Amoena*, but harder than *Hinodegiri*. We are entirely sold out but will offer these fine plants again in Spring 1947.

JOHN VERMEULEN & SON
Westbury, L. I., N. Y.

200,000 BUXUS SUFFRUTICOSA
Most beautiful, true, old-fashioned, dwarf, heavy, round, compact, perfect shaped tops, carefully grown under our personal supervision; 8 years; 10 to 12-in. plants, \$50.00 per 100; 35c in lots of 1000 or more.

MRS. CHARLIE ROBINSON, Greenville, Ga.
BROAD-LEAVED EVERGREENS for lining-out, 2½-inch pots, \$10.00 per 100.
500 *Ilex crenata*
800 *Nandina domestica*
500 *Ilex cornuta burfordi*
DUNLAP NURSERIES, Knoxville, Tenn.

HARDY LINERS Per 100
Canada Hemlock, 6 to 9 ins., 2 tr....\$20.00
Canada Hemlock, 9 to 12 ins., 2 tr.... 25.00
Zanthorhiza spiliifolia, rooted layers.... 5.00
CHAS. H. WILLIAMS NURSERIES
Box 223, Exeter, N. H.

AZALEA MOLIS
Clean, fresh seed, harvested winter of 1945-46.
Trade pkt., 50c; ½ oz., \$1.25; oz., \$2.25.
WESTERN HORTICULTURAL SUPPLY CO.
3629 S. E. 67th Ave. Portland 6, Ore.

500 **BOXWOOD SEMPERVIRENS**, 2 to 3 ft. Can be reman for several years. Come and dig them.
CONESTOGA GARDENS, Lancaster, Pa.

NATIVE AZALEAS
Snow and Pink—Heavy, good spread, 2 to 3 ft., \$10.00 per 100, \$75.00 per 1000.
MRS. CHARLIE ROBINSON, Greenville, Ga.

Surplus Stock
can be easily and quickly turned into Cash
listing it in the
American Nurseryman Classified Ads.

FRUIT TREES

Will have about 10,000 Apple, 12,000 Peach, 3,000 Cherry and 1,000 Pear Seedlings to bud this season; delivery, season 1947-48; will consider growing these on contract. **LEBANON NURSERY**, 41 Pine St., Lebanon, Ore.

We have a beautiful block of **PEACH SEEDLINGS** and can grow as good trees as any nursery in the business. We will bud 30,000 seedlings on contract.
THE FRENCH NURSERY CO.
Clyde, Ohio
Since 1863

GRASS SODS

We again solicit, after four years' absence, your **GRASS SODDING** contracts. No job too large or too small for us to handle.
ABBOTT'S GARDEN SERVICE
Box 208, Flushing, N. Y.

HARDY PLANTS

PRIMULA POLYANTHUS—WESTERN GIANT STRAIN
Clean, new crop seeds of this wonderful strain of giant, hardy primroses. Heavy, erect trusses of blooms and fine range of brilliant colors commend this strain to the most discriminating growers. Plants of this strain brought \$2.50 per dozen wholesale on the Portland market this spring. Many retailed up to 50c per clump. Seeds, generous trial packet, \$1.00 postpaid. Full ¼ oz., \$2.00. Now booking orders for seedling plants, September delivery, \$2.00 per 100. Minimum order 250.

WESTERN HORTICULTURAL SUPPLY CO.
3629 S. E. 67th Ave. Portland 6, Ore.

VIOLETS.
Sweet-scented blue, heavy, heavy bloomers; large plants, \$3.00 per 100, \$25.00 per 1000.
MRS. CHARLIE ROBINSON, Greenville, Ga.

PERENNIAL VERBENAS
Rich scarlet, large field plants, well rooted, \$4.00 per 100.
MRS. CHARLIE ROBINSON, Greenville, Ga.

SEEDS

PEACH PITS, southern collected, high germination, \$3.00 per bu. Peach, Plum, Apricot, fall delivery: 1-ft., 20c; 2-ft., 30c; 3-ft., 40c; 4-ft., 60c; 5-ft., 70c; 6-ft., 80c. Cash with order.
RIVERDALE NURSERIES, Riverdale, Ga.

SHRUBS and TREES

HOLLAND-GROWN Azaleas, *Rhododendrons*, *Junipers*, *Taxus*, *Thujas*, *Lilacs*, *Magnolias*, *Peonies*, *Pyrethrums*, *Dicentras*, *Liliums* and a good list of useful nursery items, subject to the Netherlands' government regulated prices. **JOHN VAN DER POL**, Boskoon, Holland, represented by **VAN'S NURSERY**, M. Van der Pol, owner, Fairhaven, Mass.

AMERICA'S MOST LOVELY ORNAMENTAL TREES—Liquidambar *Styraciflua* (Sweet Gum), Red Maple, Red Cedar, Red Oak, Black Gum, American Elm, Magnolia Glauca, Crab Apple, Pine and Snow Fringed (Graybeard), No. 1, 2-year, \$15.00 per 100; No. 1, 3-year, \$20.00 per 100. Quantities for sale.
MRS. CHARLIE ROBINSON, Greenville, Ga.

DOGWOOD (*Cornus Florida*)—Large white, mammoth-flowered, good spread; 2 to 3 ft., \$10.00 per 100; 3 to 4 ft., \$15.00 per 100; 4 to 5 ft., \$25.00 per 100; 5 to 6 ft., \$30.00 per 100. Attractive price on 1000 lots or more.
MRS. CHARLIE ROBINSON, Greenville, Ga.

SWEET SHRUB (*Calyanthus Florida*), a large-leaved shrub with spicy, fragrant chocolate-colored flowers; 2 to 3 ft., \$15.00 per 100; 3 to 4 ft., \$20.00 per 100. Quality stock.
MRS. CHARLIE ROBINSON, Greenville, Ga.

VINES

HALL'S HONEYSUCKLE
(*Lonicera Halliana Japonica*)
Strong No. 1, 2-year, field-grown, 3 to 4 leads, 18 to 20 ins.; carefully graded, selected plants, \$4.00 per 100, \$30.00 per 1000; lighter plants, \$20.00 per 1000. Immediate shipment.
MRS. CHARLIE ROBINSON, Greenville, Ga.

DECORATIVES

AMERICA'S FINEST NATURAL CONES—We are in the midst of South's best, perfect, uniform size, selected Pine Cones, Sweet Gum balls, Cotton and Chinaberry pods, \$2.00 per bu.; \$1.00 per bu. in lots of 500 bus. or more. Immediate shipment; satisfaction guaranteed.
MRS. CHARLIE ROBINSON, Greenville, Ga.

PINE CONES
Large Locally Picked Cones
\$7.50 per 1000.
DIAMOND STATE EVERGREEN CO.
Milton, Del.

SUPPLIES

PROFIT WITH PERF-O-RAIN.

Rain when you want it—low pressure—rectangular strip watered—No overlap—No sprinkler heads or other gadgets—Portable lightweight pipe—Long life. Write for free folder. **W. R. AMES COMPANY OF FLORIDA**, 3905 E. Broadway, Tampa 5, Florida, or **W. R. AMES COMPANY**, 150 Hooper St., San Francisco 7, Calif.

CANE STAKES
FOR POT PLANT GROWERS
Now is the time to get the best DOMESTIC CANE STAKES. All dark green. Check this list now and send your order.
HYACINTH STAKES, THIN.

	Per 1000
12 ins.	\$5.00
15 ins.	6.25
18 ins.	7.15

	Per 1000
1 ft.	5.50
1½ ft.	7.15
2 ft.	8.85
2½ ft.	11.75
3 ft.	13.15
3½ ft.	14.20
4 ft.	16.95

(Can also furnish 5 and 6 ft. Write for prices.)
MEDIUM HEAVY.
¾ to 1½-in. (500 to bale.)

	Per 1000
2 ft.	10.50
2½ ft.	15.00
3 ft.	16.00
4 ft.	17.50
5 ft.	29.70
6 ft.	35.00

HEAVY TONKIN.
¾-inch and up.

	Per 1000
3½ ft.	\$3.00
4 ft.	3.50
5 ft.	3.80
6 ft.	5.30
7 ft.	5.95
8 ft.	6.60

AMERICAN FLORIST SUPPLY CO.
1335 W. Randolph St. Chicago 7, Ill.

A. F. S. "EAST-OFF" WOOD PLANT BANDS
Size in ins. Weight per 1000 Per 1000
1½ x 1½ x 2½ 12 lbs. \$3.35
2 x 2 x 3 15 lbs. 3.80
2½ x 2½ x 3 20 lbs. 4.20
3 x 3 x 3 21 lbs. 4.60
3 x 3 x 4 32 lbs. 5.30
4 x 4 x 4 40 lbs. 6.30

Packed 100 to the carton. We do not break cartons.
LIGHT WOOD FLATS.
For handling and shipping our 1½-inch and 2-inch sizes of Plant Bands.

	Per 100
M-370; holds twelve 1½-inch Bands....	\$2.75
M-390; holds twelve 2-inch Bands....	3.30
M-392; holds twelve 2½-inch Bands....	3.75
M-393; holds six 3-inch Bands....	3.55
M-394; holds six 4-inch Bands....	3.95

Packed 100 to the carton. We do not break cartons. Shipped promptly from the factory in Michigan.
AMERICAN FLORIST SUPPLY CO.
1335 W. Randolph St. Chicago 7, Ill.

MEL-LO PEAT
A pure Sedge Peat, weedless, odorless, no inert matter. Analyzed 2 to 2½ per cent nitrogen, 96 per cent humus; acidity 5.3 to 5.8. Used by greenhouses, growers, landscape gardeners and golf courses since 1933. Recommended by the agricultural colleges and universities. Accept no substitutes. Demand a nationally known product, Mel-lo Peat. The best natural humus available today.

	Per 100
1 to 10 2-bu. bags, f.o.b....	\$1.25
11 to 50 2-bu. bags, f.o.b....	1.10
51 to 100 2-bu. bags, f.o.b....	1.00
101 to 200 2-bu. bags, f.o.b....	.90

Every planter needs Mel-lo Peat for potting, coldframes, seed boxes, porch boxes, enriching lawns, trees, shrubs, gardens. Excellent for gardenias, azaleas, and hydrangeas; one part peat, two parts soil is ideal. Very good for carnations, petunias, cyclamen, camellias and gladioli.

MEL-LO PEAT CO., ELYRIA, O.

STAKES—Bamboo
Carefully Selected—Dyed Dark Green.
Uniform Pencil Thickness.
No. G-31 2 ft. Bale of 2000....\$10.95
No. G-32 2½ ft. Bale of 2000.... 13.90
No. G-33 3 ft. Bale of 2000.... 16.65
No. G-34 3½ ft. Bale of 2000.... 19.45
No. G-35 4 ft. Bale of 2000.... 23.35

TONKIN STAKES—Bamboo
Dyed Green—Medium Heavy.
No. G-41 3 ft. Bale of 1000....\$ 3.85
No. G-42 3½ ft. Bale of 500.... 7.75
No. G-43 4 ft. Bale of 500.... 8.70
No. G-44 5 ft. Bale of 500.... 11.95
No. G-45 6 ft. Bale of 500.... 13.75
No. G-46 7 ft. Bale of 500.... 17.90

We cannot break bales. Quantity discounts, 10 to 24 Bales, 5 per cent. 25 Bales or more, 7½ per cent.
SCHUPP SUPPLY CO., Wilmette, Ill.

KNOCK-DOWN FLATS.
Made from a good grade of Southern Yellow Pine, since Cypress is not available. Standard specifications, inside measurements.
16x12x2½.....\$11.25 per 100
16x14x3..... 14.25 per 100
20x14x2½..... 14.00 per 100
20x14x3..... 16.25 per 100
22½x15x2½..... 15.75 per 100
22½x15x3..... 18.00 per 100
All other sizes quoted on request. Prices F.O.B. Birmingham.

We are manufacturers, not jobbers. Freight to any point is a small item per Flat. Our Flats are the best. Why pay more? Our quality guaranteed. Prompt shipment, any quantity. Attach check to order.
HIGHTOWER BOX & TANK CO.
Birmingham, Ala.

IMPORTED CANE STAKES

Check your needs and order now.

Size	Per 1000
12 ins.	\$3.60
18 ins.	4.10
24 ins.	4.40
30 ins.	4.90
36 ins.	5.30
42 ins.	10.75

2000 per bundle

AMERICAN BULB CO.

1335 W. Randolph St. Chicago 7, Ill.

FINE NO. 1 OR NO. 2 SCREENED PEAT.

Acid pH 4-8. Some nitrogen.

Our Peat is excellent for Azaleas and Hydrangeas, also for mixing with soil for potting and seed flats. This Peat is very good for Petunias. Pack in 2-bu. bags, 5 to 24 bags, \$1.00 each; 25 to 49 bags, 95c each; 50 to 100 bags, 90c each. We ship same day order is received. Cash, please.

HAASE BROS.

116 S. Jefferson St., Peoria, Ill.

SPHAGNUM MOSS

Long-fibered, burlap bales, 1946 production, prompt delivery: F.O.B. Floodwood, Minn. \$1.80; F.O.B. Hanlontown, Ia., \$1.95. Fine milled, 50-lb. bags, for control of damping-off, etc.; F.O.B. Floodwood, Minn. \$1.75; F.O.B. Hanlontown, Ia., \$1.90.

COLBY PIONEER PEAT CO.

Hanlontown, Ia.

MAGIC ELECTRIC WELDER, 110-volt AC-DC; welds, brazes, solders, cuts all metals; easy to use; full directions. Complete with power units, flame and metallic arc attachments, carbons, fluxes, rods, mask. Only \$19.95. Used by the Navy. Guaranteed one year. Splendid for nursery and farm use.

MAGIC WELDER MFG. CO.

241NA Canal St., New York, N. Y.

STEEL TUBULAR STAKES

Place orders now to meet your early spring sales, together with your own nursery requirements. 1/4-in. copperized to prevent rusting, 2c per ft.; 1/2-in. plain, 3c per ft. 1/2-in. plain, 4c per ft.; less 20 per cent. Made up in any length. Samples mailed.

H. HOENBERGER, Box 253F, Monroe, N. Y.

SOIL HEATING EQUIPMENT, designed by a grower and engineer, for commercial propagation. Cable, soil thermostat and pilot lamp to heat 20 sq. ft., \$11.40; 40 sq. ft., \$14.25; 60 sq. ft., \$17.10; 80 sq. ft., \$19.95; and 150 sq. ft., \$27.05. F.O.B. Seattle.

L. N. ROBERSON CO.

1539 E. 103rd St. Seattle 55, Wash.

RUBBER. Your Rubber requirements are important. Know where to get it when you want it. Belts, rubber bands, boots, coats, gloves, hoses, spray bulbs, aprons, budding strips. Get our price sheet and catalog today.

BROADWAY RUBBER MFG. CO.

Louisville 2, Ky.

SELECT QUALITY WIS. SPHAGNUM MOSS. The kind you buy again and again. Tightly compressed in burlap or wire, direct from drying beds. Trucked when feasible. Prompt shipment.

WARRENS MOSS CO., Box 7, Warrens, Wis.

GIBRALTAR Frost Covers pay for themselves. Economical, long-lasting, ideal for windbreaks, 6 ft. wide; 50 ft., \$13.75; 100 ft., \$26.00; 150 ft., \$39.00. NEW AMSTERDAM IMPORT, 122 Chambers St., New York 7, N. Y.

PRINTING

Letterheads, blurbheads, statements, cards, envelopes, tags, blotters, folders, catalogs, samples. Send copy for estimate.

J. GARLAND HILL, Dept. A, Seaford, Del.

SPHAGNUM MOSS

Best quality from the new crop. Standard size, burlapped bales, \$2.00 per bale. Cash with order.

F. M. HANCOCK, PITTSVILLE, WIS.

SOIL HEATING CABLE by "GRO-QUICK." Heavy duty cable now available, also thermo. Bottom heat can't be beat for rooting cuttings, for forcing. Get free instal. date, GRO-QUICK, 366 W. Huron St., Chicago 10, Ill.

COTTONETTE Squares are best for balling. Saves time and twine. All sizes in stock. Write NEW AMSTERDAM IMPORT

122 Chambers St., New York 7, N. Y.

WANTED

WANTED for fall delivery: 500 Peach, 300 Pear, 200 Plum, 200 Apricot, 100 Apple, 50 Cherry, 10 Nectarine, 10 Almond, 10 Quince. Grade, 4 to 6 ft., 1 1/16-inch and up. First-class. Please let us have list of whatever varieties you can supply. If you cannot supply all, we will consider whatever amount you can supply. Quote price now if you so desire or market price later will be O.K.

TRAUERNICHT NURSERY CO.

400 N. Sylvania Ave.

Fort Worth 3, Tex.

AFTER five years in service, George W. Turner is back on the job as manager of the Spring Brook Nursery, Imlay City, Mich.

CALIFORNIA TEST GARDEN.

[Continued from page 29.]

gonias have been crossed extensively, producing some new and beautiful types of plants.

These grounds will be used for test grounds for various types of plants coming from all parts of the world and will be left to posterity as a park with native trees and plant innovations.

CALIFORNIA NOTES.

Recently there have been several meetings of nurserymen in the bay area with regard to pinto tag certification. The meetings have been with the agricultural commissioners of the counties concerned, and it is reported that all the necessary papers are drawn up and signed. It will now be but a short time until the plan is put into operation. The commissioners report, however, that for the present there are relatively few nurseries which can qualify for the pinto tag.

Since his return from the east, where he was during the war, Toichi Domoto has greatly improved the appearance of his Hayward camellia nurseries.

Mr. and Mrs. George Havice have returned from a 3-week visit to Utah, Colorado, Arizona and New Mexico.

Al Jockens has returned from three years' overseas service. He is now with the Peninsula Begonia Gardens, Redwood City.

Charles Burr, former secretary of the Central California Nurserymen's Association, has resigned his position with the California Nursery Co., Niles. He had been with this company for about twenty years. He is now buyer and advertising manager for a group of four northern California nurseries. These nurseries are independently operated organizations, but have decided to pool their buying and advertising.

Since taking over the management of the Pacific Nurseries, Colma, Paul von Kempf has made a number of changes. He has burned several truckloads of obsolete plants which had become too large for selling purposes. He is planning a large office and sales building, some coldframes and hotbeds, a lath house and a small greenhouse. He has with him Bert Edwards, who will be in charge of plant propagation and is a specialist in native plants and plantings.

John Edwards, Millbrae camellia grower, and Mrs. Edwards announced the arrival May 26 of Nancy Lee Edwards. She is their first daughter and their third child.

The California Association of Ag-

ricultural Commissioners held its annual meeting in Lake county early in May. Three days were devoted to an intensive coaching course in weed control, rodent control and inspection duties. Airplane shipping of flowers and vegetables came in for a large share of the work in connection with the marketing standardization and inspection service. Members of the association gave reports of their work in these lines. Members of the faculty of the University of California and members of the state board of agriculture gave reports of new materials and methods developed during the past year.

Sugar beet production in northern California is off more than fifty per cent. Tomatoes are replacing the sugar beet crop.

The California state fair, which was suspended during the war years and which it was planned to reorganize on a grand scale this year, has been postponed until 1947. Reasons given are lack of housing facilities at Sacramento and labor shortages.

The Perennial Gardens, Santa Barbara, have been taken over by A. C. Splinter, who will operate them under the name of the Swiss Gardens.

At La Crescenta, George Reader and C. E. Bean will operate the Inter-Valley Nurseries.

Fred DeLuca has opened a retail nursery to be operated in connection with his landscaping business at Van Nuys.

The state department of agriculture has openings for about seventy-five junior entomologists and plant quarantine inspectors. The starting salary is \$200 per month. Applicants must have resided in California for at least one year previous to taking the civil service examination, which is required for permanent appointment to the positions open.

The old Pierson Bros. Nurseries, Fresno, are now known as the Chino-Oliver Nurseries. A flower store has been opened in connection with the nursery and garden supply business.

Mr. and Mrs. T. Crockett now operate the Wishing Well Nurseries, Laguna Beach.

Commercial shipments of fresh vegetables are about ten per cent greater than in 1945, which set all records in California. Prices to growers will be only moderately below those of last year, according to "The Vegetable Situation," published by the United States Department of Agriculture.

Prof. E. A. Essig, of the University of California, was speaker at a recent meeting of the California Horticultural Society. Professor Essig is head of the department of entomol-

ogy at the university and is also a famous iris breeder.

Arthur Cobbledick has been appointed landscape architect for the San Mateo Fiesta, according to a release from the San Mateo County Fair Association. This fair is primarily an exhibit of San Mateo-grown flowers and ornamentals.

The Misses Susko have sold the site of the Susko Nursery, San Mateo, to William Zappettini, a leading San Francisco flower shipper. The area will probably be used for a housing project. The nursery was established twenty-three years ago.

William Poss, who recently sold his flower and nursery business to a syndicate of local men, has announced his candidacy for the position of county supervisor next fall. He will run on a platform whose slogan will be "A Businessman for Supervisor."

Men in the business expect the nitrogen fertilizer shortage to continue through 1946. They report, too, that the potassium supply will be about 100,000 tons short of the estimated needs.

Outbreaks of aphids in California nurseries and orchards are reported to be more severe than for many years. The lack of nicotine sprays is handicapping the control of these pests.

Last year the Sierra Peat Co. shipped out of Modoc county nearly \$100,000 worth of peat. Since the war and the shortage of Canadian peat, California peat has found a ready market.

Fresno county mailed more than 100,000 copies of a booklet containing recipes for raisins. This county is one of the leading grape-producing counties of the state, and the nurserymen in the area devote a large percentage of their land to the production of grapevines.

It is claimed that the Chinese chrysanthemum growers in the San Francisco area have planted about 300 acres with this crop. If so, this will be about twice the acreage ever before devoted to chrysanthemums. Insect losses to the growers have been greater than ever before.

According to recently published figures, the all-out peak production of farm products for the war effort was accomplished with practically the same acreage (two-tenths per cent increase) as in the prewar period. More extensive use of fertilizers, greater use of machinery, better varieties and better pest control are given as reasons for the increased production.

The Pacific States Seedsmen's Association planned to hold its conven-

WANT ADS

Help and Situation Wanted and For Sale advertisements.

Display: \$2.50 per inch, each insertion. Liners: 20¢ line; minimum order \$1.00

FOR SALE

Landscape construction and maintenance business in Portland, Ore. Will net \$5,000 a year with one year-around helper and 3 or 4 extras in busy seasons. Small truck and all tools. Customers all close together and very little running around. Opportunity for a real gardener in a climate where he can work the year around. Owner retiring on account of age after twenty years in business.

Address Box 441, care of American Nurseryman.

FOR SALE

NURSERY AND GREENHOUSE

Long established greenhouse with 33 acres of fine soil for nursery business; beautiful brick home; 2 fine bulb ponds; fine location on highway adjacent to Hutchinson; price \$30,000.00 to close estate; write

J. N. BAILEY & SON,
REALTORS
Hutchinson, Kan.

HELP WANTED

Experienced nurseryman and sales manager for our branch nursery and garden shop.

Must know perennials and all kinds of nursery stock. Must know how to grow and propagate same. A fine opportunity with a future for the right man. Living quarters on place. State all details as to your experience and references in your first letter.

HILLSDALE LANDSCAPE
R. R. 13, Box 163
Indianapolis 44, Ind.

FOR SALE

Nationally known nursery of 100 acres, located 10 miles west of Springfield, Mass., on north-south highway. Privately owned and operated by same family for nearly 70 years. Rhododendrons, Azaleas, Kalmias and Hemlocks, many specimen Azaleas and Rhododendrons. Buildings and all necessary equipment for efficient operation.

Address Box 440, care of American Nurseryman.

HELP WANTED

Landscape salesman, also nursery salesman, also nursery propagator. All three men must be thoroughly experienced. Write full particulars.

MALMO NURSERIES & LANDSCAPE
SERVICE
Seattle, Wash.

FOR SALE

SPECIALTY PROPAGATING ESTABLISHMENT

Introducers of Gable's Hardy Hybrid Azaleas which have moved the northern limit of azalea culture more than 150 miles north for large flowers with broad color range. First commercial producers of Own-Root Hybrid Rhododendron. Ten acres of ground with buildings, one acre of overhead irrigation; adequate stock plants, plus an additional inventory of salable items, tools and equipment. Customer lists, inquiry list and all production information.

Reasonably priced for quick sale. Terms. Excellent buy and within financial range of young man interested in opportunity to build own business.

OLD KENT NURSERY
Chestertown, Md.

HELP WANTED

Experienced supervisory personnel needed for expanded operations by an old line Eastern Wholesale Nursery.

Address Box 442, care of American Nurseryman.

FOR SALE

Nut tree nursery business, specializing in northern trade. Business growing nicely. Owner retiring. Will sell good will, mailing lists, stock in ground and rent land for term to young man with gumption and small capital.

J. RUSSELL SMITH
Swarthmore, Pa.

tion at Del Coronado (across the bay from San Diego) early in June. Seed growers and sellers from over the entire country were expected to attend the meeting. W. B. B.

THE Franklin W. Gamble Nursery has been started at Mill Valley, Cal., by Mr. and Mrs. F. W. Gamble. They will specialize in orchid seeds, seedlings and plants in addition to their retail general nursery business.

THE Huntington Beach Nursery, Huntington Beach, Cal., has been purchased from Charles Schmekel by Mr. and Mrs. Leo W. Farwell, who have been florists there for eighteen years. They have changed the name to Huntington Beach Nursery & Florist.

FOR SALE—10-acre nursery, located in heart of Illinois; population 13,000, only nursery here; no overgrown stock, all salable stock; can lease ground for \$100.00 a year; doing a good business; want to retire; one-half cash, carry balance for any worthy man.

LINCOLN NURSERY CO.
P. O. Box 33, Lincoln, Ill.

FOR SALE—Entire nursery business, wholesale and retail, complete with about 25 acres of stock; total about 100 acres. One house, tools, tractors, barn, greenhouse, etc.

PETER J. BOOY NURSERIES,
Mendham, N. J.
Phone: Mendham 3-0248

WANTED
To employ on Veterans' Training Plan, a young man who has had some landscape training and sales experience.
WAYNESBORO NURSERIES
Waynesboro, Pa.



Seventy-first Annual Convention
AMERICAN ASSOCIATION OF NURSERYMEN
Miami Beach, Florida
July 14 to 18, 1946



THE A. A. N. CONVENTION NUMBER

of the

AMERICAN NURSERYMAN

July 15, 1946

The Victory Convention of the national organization—the first full meeting of members since war restrictions were imposed—will make this Special Number of prime interest to the trade at large, and will be read by a record number of nurserymen throughout the country.

THE OUTSTANDING ISSUE OF THE YEAR

Four cover pages of plant pictures in full color.

Reference number — kept and consulted by over 6,000 readers.

Buyers' directory — record advertising of supplies, equipment and stock.

Covers in full color, advertising of diverse character and special editorial features make this annual number prized by readers throughout the year. Plan now for conspicuous space in this number. Over 6,000 nurserymen will look for your advertisement and will see it again and again — a continuing reminder of your service, stock, supplies or equipment when needed.

Send your advertising copy early for the big Special Number.

Advertising forms will close July 2.

AMERICAN NURSERYMAN

THE Magazine Nurserymen Everywhere READ

343 S. Dearborn St.,
Chicago 4, Ill.

SPRING BUSINESS.

[Continued from page 16.]

the season started we wondered if and how we would ever get through, with the shortage of field labor.

"We used women in the storage for packing and shipping, but it was necessary that we have men in the field for digging stock and planting. The shortage of men was quite noticeable in this particular locality, because in our town we have several factories that use large numbers of men.

"During the time the employees of the Oliver Tractor Co. were on strike we were fortunate to have some of these men help us in the field. Later we used a few of the Oliver men who were laid off because of the annual inventory and the shortage of material and coal. These men helped us transplant stock to the field.

"Our nursery business in a general way was good, although the mail-order business was down. It was particularly noticeable in the shrinkage in sales of larger fruit trees.

"Labor is short; the cost of labor has increased and will possibly increase more before fall and next spring. Supplies not only increased in price, but many items are almost impossible to obtain. So I see no way for reduction in the prices of nursery stock. As a matter of fact, I think it necessary that prices on evergreens increase because of the labor involved in balling the trees.

"There is a possibility, in my opinion, that fruit trees will not drop in price, because fruit tree seedlings were not in surplus. Shrubs will probably remain about the same as this year, and I feel there will be an increase in the demand for shrubs if the building program gets under way. There is no question that lining-out evergreens will be exceptionally scarce for a few years to come."

Most Favorable Weather.

Nearly ideal weather conditions and fine cooperation from transportation services were of considerable help, according to J. J. Pinney, of the Willis Nursery Co., Ottawa, Kan., who writes:

"Taken as a whole, our spring season was considerably better than that of a year ago. Our sales were up and the labor situation was somewhat better, although still far from good.

"We cannot recall a time when weather was more favorable. Only a few days were lost on account of rain, but in spite of this there was sufficient rain so that we did not suffer for lack of moisture. Digging conditions were just about ideal.

"Because of the labor shortage, it

Beets-*dee* TREE SHAPER

A guiding tool to shape Evergreens up to 10 ft. tall perfectly in 8 to 12 minutes. Hedges and other shrubbery trimmed with equal speed. Adjustable any size any shape.

A PERFECT TOOL FOR A PERFECT JOB.

All steel, chromium plated.
Folds into a compact unit.
Weight 6 lbs. Life time guarantee. Available now. \$15 prepaid anywhere in U. S. A.



BEETS-INC.
 P. O. BOX 997, DEPT. Z, LANSING 4, MICHIGAN



AND THE CROPS GROW GREEN ALL AROUND

Build Your Own Irrigation System

Using the nozzle that gives adequate irrigation on low operating cost. Covers 40-foot circle on 15 lbs. pressure. Complete even coverage improves yields and quality of crops.

Plan and instructions sent upon request.

ITTNER BROS. Anoka Minnesota

PLANT-CHEM

SALTS

GROW PLANTS with SOIL or without

The balanced plant food with complete nutrients, all trace elements and plant hormone. Attractive, easy to handle 10c to \$25.00. Top seller . . . Profitable . . . National advertising . . . immediate delivery . . . write today.

PLANT-CHEM, INC.
 1355 Market • San Francisco 3

Pour it on • Watch 'em Grow!

SPRAY WITH.. C. P. O.

Use this Safe, Odorless, Non-Poisonous *Spreader* in place of fish oil soaps and summer oils.

FOR BETTER CONTROL OF

Lace Bug	Pine Leaf Scale
Red Spider	Spruce Gall Aphid
Juniper Scale	Euonymus Scale
Lilac Scale	Aphids

And Most Sucking Insects on Evergreens and Ornamentals

Write for information and samples and learn how you can reduce cost of nicotine sprays one-half.

Crystal Soap & Chemical Co., Inc.
 Department A N
 6300 State Road, Philadelphia 35, Pa.

LINDIG'S SOIL SHREDDER

New improved model

Engineered for the perfection of soils.

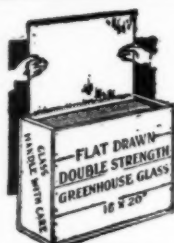
Prompt delivery.

Write for folder and price list.

Lindig's Mfg. Co. 1675 W. Carpenter Ave. St. Paul 8, Minn.

Special equipment built to your specifications.





NEW Quality GLASS Sale

Buy Now!
Don't Wait

8x10 SS per box (90 lights).....	\$3.45
10x12 SS per box (60 lights).....	3.45
10x12 DS per box (60 lights).....	3.95
10x14 SS per box (51 lights).....	3.45
10x14 DS per box (51 lights).....	3.95
14x20 DS per box (26 lights).....	4.10
16x18 DS per box (25 lights).....	4.10
16x20 DS per box (23 lights).....	4.10
16x24 DS per box (19 lights).....	4.10
18x20 DS per box (20 lights).....	4.10



Aluminum Paint

Once again we can furnish that fine aluminum paint that was off the market during the war. The quality has no equal. Highly water and weatherproof—retains its elasticity for years and adheres readily to any surface.

30-gal. Drums \$3.60 gal.	5-gal. Kegs \$3.70 gal.	1-gal. Cans \$3.80
---------------------------------	-------------------------------	--------------------------

Glazing Points

These glazing points are pure zinc with spiked heads; point is beveled to hold tight against the glass. Do not confuse these pure zinc points with cheap galvanized brads. Pure zinc will never rust. Save yourself future repairs by using only Pure Zinc Points. The Everlasting Kind.

All Sizes 50c per Pound Package
 1/4-inch.....1200 points per lb. pkg.
 3/8-inch..... 960 points per lb. pkg.
 1/2-inch..... 800 points per lb. pkg.

Peerless Glazing Point

Stop Glass from Sliding! \$1 a Box
 No rights, no lefts, no raising up while being driven. Indestructible, made of galvanized wire. Once used always used. Don't substitute.

Small No. 1	Medium No. 2	Large No. 2 1/2
----------------	-----------------	--------------------



BEST BY TEST Glazing Compound

Will Not Harden

Our Glazing Compound will give you the longest service and satisfaction. Composed of adhesive weather-proof oils, gums and asbestos fiber. Easily applied with a glazing or caulking gun.

Economical Durable Very Elastic
 Light Gray or Slate Gray.

30-gal. 5-gal. 1-gal. Drums Drums Cans
Gun Grade\$1.90 gal. \$2.00 gal. \$2.10
Bedding Grade . 2.00 gal. 2.10 gal. 2.20



Cuprinol

Has been used for years by the United States Navy for the preservation of wood. Works magic on your benches, seed flats, stakes. Absolutely harmless to plant growth. No fungus and no insects will live on Cuprinol-treated wood.

Exhaustive tests by Agricultural stations have proved these statements. Can be applied by brush, spray and dip. Completely descriptive circular on request. Safe and economical to use.

Keep a 5-gal. or 50-gal. drum on hand. It does not deteriorate. Immediate shipment.

1-gal. can	\$2.90
5-gal. drum (per gal.).....	2.80
50-gal. drum (per gal.).....	2.70

Heavy Duty Glazing Gun



Price ... \$3.75
 (With 3 Nozzles)
 Weight 2 1/2 lbs.

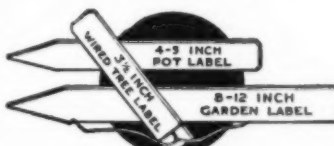
For applying elastic glazing compound or bulbing putty for bedding greenhouse glass. Can also be used for caulking compounds and roof cement. Has leather washer and steel spring trigger action. Gun has pistol grip, and is well balanced. Actual size, 16 ins. long, 2-in. barrel; fills by suction.

Makes a PERMANENT RECORD

on your
LABELS
AND STAKES

Evermark Pencils

For writing on all plant labels. Will not rub off, will not wash off. This is the original Evermark—endorsed by leading growers everywhere. Send \$1.00 for trial package of one dozen 7-in. pencils.



Dahlia and Tree Labels

	Price per 1000
	Plain Painted
3 1/4 x 1/2" Notched, not wired.....	\$2.00 \$2.70
3 1/4 x 1/2" Wired	2.50 3.00

Pot Labels

	Price per Carton
	Plain Painted
4x 1/2" (Cartons 1,000 each)....	\$2.25 \$2.75
5x 1/2" (Cartons 1,000 each)....	2.50 3.00
6x 1/2" (Cartons 1,000 each)....	2.75 3.25
8x 1/2" (Cartons 500 each).....	2.00 2.50
10x 1/2" (Cartons 500 each).....	2.50 3.50

Garden Plant Stakes

	Price per Carton
	Plain Painted
8x 1/2" (Cartons 250 each)....	\$2.00 \$2.25
10x 1/2" (Cartons 250 each)....	2.25 2.50
12x 1/2" (Cartons 100 each)....	1.25 1.50

Our labels are perfectly white and smooth on both sides and are pronounced by growers the best and most economical.

Money back if not satisfied
 "We ship the same day"

YOH & HOOKER
 Youngstown 1, Ohio

was necessary for us to discontinue booking orders for evergreens early in the season. Many of our customers were so anxious to get evergreens they sent crews to our nursery to dig their own trees. Some of them came from considerable distances.

"There was some falling off in the demand for small fruit plants, but the demand for other classes of nursery stock was brisk. There was a pronounced increase in the demand for ornamental stock, indicating the pent-up desire of the planter to beautify his surroundings. This has been more or less suppressed during the war, when the need for food production was great.

"The railroads did a splendid job of moving our product. Some local freight shipments were delayed seriously, but the carload lots went through promptly. Motor freight service was also good.

"It is a little too early to make predictions for next season, but nurserymen in general seem to be very optimistic about the prospects. Apparently the supply of nursery stock

PEAT

Now booking bulk car shipments for 1946 spring and summer delivery of Black cultivated Peat and Moss Peats.

"Quality Peats for all Purposes."

ELI COLBY COMPANY

Hanlontown, Iowa

PEAT MOSS

Bulk: 75c per 2-bu. bag in 100-bag lots. Ground: 90c per 2-bu. bag in 100-bag lots. Fertilized: \$1.50 per 2-bu. bag in 100-bag lots.

30-day delivery. 50 per cent cash with order. Bulk carload, special price.

ARCHIE PANETTI CO.

Rt. 4, Box 368 Waukesha, Wis.

Learn LANDSCAPE GARDENING

A thorough interesting home training covering your regional conditions for both those who wish to become LANDSCAPERS, DESIGNERS and GARDENERS, and those who wish to learn for their own use and pleasure.

EMPLOYEE TRAINING
 Nurserymen from Maine to California are using this training to upgrade employees. It may be of help to your organization.

Send for FREE Information

National Landscape Institute
 Dept. N-6, 756 So. Broadway, L. A. 14, Calif.

IT COSTS NO MORE
 (and in most instances less)

FOR OUR PACKING OF
**Nursery Burlap
 Squares and Rolls**

Write for prices and samples.

L. ATKIN'S SONS
 P. O. Box 167 Rochester, N. Y.

is still quite short. It probably will be several years before any real surpluses appear. If the home-building program really gets under way, nurserymen can look forward to an excellent business."

Plantings Insufficient.

Despite high prices, only the shortage of stock prevented even heavier sales for the Verhalen Nursery Co., Scottsville, Tex., according to Steve Verhalen, secretary and sales manager, who writes:

"Concerning our business season which has just ended, all we can say is that if we had more stock and more help there is no limit to what could have been sold. Prices were not a factor this year; however, we remained within reason, which was approximately fifteen to twenty per cent above the prices of the previous season.

"Even though we spent considerable money in planting new stock to our fields, it is obvious by the present demand and shortages of stock that our planting was away too small.

"Lining-out stock is selling at a high level. As a result, it seems to us there is going to be, for the next several years, a steady price on finished stock comparing favorably with that of today.

"Labor has been more plentiful but less efficient. It seems that unemployment compensation pay, returning veterans' pay and the like have a tendency to make the man seeking a job or holding down a job feel independent. As a result, there remains a high turnover of labor. In our locality we have actually a surplus of help available. In other sections of the state, 150 miles from us, there is considerable shortage yet."

Successful Season.

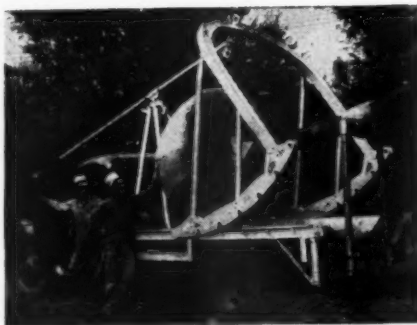
As elsewhere, business was good on the west coast, and A. H. Steinmetz, manager of the Portland Wholesale Nursery Co., Portland, Ore., reports a record season for his firm. With the expectation that the building boom will bring increased business for the trade, he writes:

"The season that we have just completed has been successful from almost all standpoints. The volume is the largest in the history of our company; transportation has not presented any serious problem, and our customers have paid promptly and with few complaints.

"An extremely wet winter season made field work somewhat difficult, but April and May have been dry, and we are now asking for a good soaking rain.

"Spring planting has been heavier

AUTOMOTIVE TREE MOVERS



After many years devoted to the development and manufacture of tree movers, Williams & Harvey are again starting to produce the latest model Rocker Type Tree Mover.

These machines have been thoroughly tested, not only in our nursery, but by others during the war period. The simplicity in the operation of this mover, plus demountable features, cuts the cost of moving big trees. Write for particulars.



WILLIAMS & HARVEY NURSERIES

Box 7068, Country Club Station,

KANSAS CITY 2, MO.

Protect Flowering and Ornamental Trees and Shrubs



Also ROSES and EVERGREENS from Insect Pests



Use "VOLCK" against Red Spiders, Mealybugs, Scale, White Flies, and certain other insect pests. Kills both eggs and adults. Widely used by professional and home gardeners. Easy to mix. Easy to use. Sold by garden supply dealers.

Manufactured by

CALIFORNIA SPRAY-CHEMICAL CORP.

Richmond, Calif. - Elizabeth, N. J.



PRONOUNCING DICTIONARY of Plant Names

64 pages, 3000 names, 25¢ per copy
American Nurseryman Chicago

SHADE TREES

• Insects and Worms — destroyed vegetation — reduced leaf area — stunted growth — these are some of the problems of the shade tree grower. Get our illustrated booklet that describes the use of "Black Leaf 40" in controlling certain insects on shade trees. Lists insects — gives dosage.

FREE BOOKLET—Write 4136

Black Leaf

TOBACCO BY-PRODUCTS & CHEMICAL CORP., INCORPORATED - LOUISVILLE, KENTUCKY

than for several seasons, and there seems to be sufficient help to give the stock good care. It seems evident now that the supply of stock for the next two seasons will be far less than the demand, and during that time we shall be able to take care of only our regular customers, dividing up the stock as fairly as we possibly can.

"We believe that business will continue to be very good for a number of years to keep pace with the extensive building program."

Cleanup in Southern California.

As in other parts of the country, the demand for nursery stock was greater than the supply and nurserymen there had a good season, according to John A. Armstrong, vice-president of the Armstrong Nurseries, Ontario, Cal. Anticipating another season with shortages in many items, he warns nurserymen to keep their prices in line with rising costs if they want continued prosperity. Mr. Armstrong writes:

"The spring was a successful season insofar as southern California nurserymen are concerned because all salable stock of almost every description was cleaned up. There was probably a larger volume of deciduous fruit trees sold than for the previous season, the only items that did not clean up well being a few small June-bud peaches. Citrus, avocados and other subtropical fruit trees, particularly citrus, were in short supply, and many dealers had complete stocks for but a short time. Large specimens of ornamentals were extremely scarce, and much of the material sold was barely up to salable size. The demand for ornamentals was excellent.

Roses were extremely short. Probably it was the smallest rose crop in many years, although there were more tree roses available, and these lasted quite well through the planting season.

"Help became more plentiful as the winter and spring progressed, and there was no shortage of unskilled labor most of the time.

"Railroad freight service was still too slow to be satisfactory for shipping nursery stock, and most of the material had to be sent by motor freight or express.

"The only line which showed some decrease in volume was berry plants and grapevines. This was probably due to the lessened pressure for home fruit production.

"For the 1946-1947 sales season there appears to be a plentiful supply of deciduous fruit trees. Citrus trees will still be quite short. Ornamentals, except in a few fast-growing varieties, will still be short in mature

CONCORD HAS FOR YOU...

Nationally Advertised

DU PONT PRODUCTS

— FAST PROFIT MAKERS —

**DU PONT
KARMEX 2, 4-D
WEED KILLER**

It's Selective!

- Kills Weeds
- Saves Grass



2-lb.
6-lb.
50-lb.
350-lb.

NO FUSS — NO MUSS

**HANDY
TABLETS**

25-TABLET SIZE
100-TABLET SIZE



**DU PONT
AMMATE
POISON IVY KILLER**

- Permanent Kill
- Safe To Livestock
- No Fire Hazard

—Again Available

**DU PONT
DDT
INSECT KILLERS**

5% DUST TYPE 5%
SPRAY TYPE

IT'S JUST MURDER!

To Flies, Mosquitoes, Moths,
Roaches, Bedbugs and
many others.
Contains
Pyrethrins



1 LB.
ONLY



**DU PONT
GARDEN DUST
KILLS BUGS • STOPS BLIGHT**

Does Both At Once!

- Contains 5% DDT Plus Rotenone
- Contains Du Pont Zerlate and Fermate

DEALERS:

WRITE OR WIRE FOR 'PROFIT-MAKER PLAN,
PRICE SCHEDULES AND FOLDERS TO

**CONCORD
CHEMICAL PRODUCTS, INC.**

636 SIXTH AVE.,

NEW YORK 11, N. Y.

sizes. Landscape planting is on the increase and will take all of the available supply quickly. Roses will be increased in quantity, but the increase will be smaller than had been anticipated, and there will not be enough to go around.

"Since wages have been increasing steadily for the past year or two and are still continuing to increase, there are bound to result somewhat increased prices for many types of nursery stock, particularly since the costs of production are up insofar as materials are concerned. The trend of prices will have to be upward unless the nurserymen kid themselves, as they far too often used to do in prewar days."

THE SPRING IN COLORADO.

In a state where "unusual" springs are the usual thing, we had this year in Colorado a spring different from any the old-timers could remember.

From the middle of February until well into May there was ideal planting weather, pleasant days and cool nights, but no severe weather and little snow. Everything in the nursery and many people were fooled into thinking that for once we would have a spring with none of the usual late returns of winter. Leaves and flowers were out as they would normally be a month later. Even the very conservative plants, such as walnut, honeylocust and mulberry, were showing green. Then, May 10, we had snow and freezing weather, and about a week later another snow and freeze. It looked for a while as though all green leaves and flowers would be destroyed. It is late enough now partially to check the actual damage. Catalpa, ash, mulberry, sumac, ailanthus, Kentucky coffee tree and a few others had all their green leaves killed. Most of them are now showing new green buds, but some may be entirely killed. Most of the fruit of all kinds is gone.

Most of the nurseries did a good business and cleaned out almost all their salable stock. Labor was a little easier for a while.

While Coloradoans are not so fanatically jealous of their state as the residents of some other western states, we do not let setbacks like this temperamental show of weather dampen our love for the state. There are still so many favorable things here that we will gladly put up with some of these small inconveniences.

George W. Kelly.

ALBERT BRIGGS has purchased the Harris Valley Nursery, Granger, Ind., from Eugene A. Liegeois.

A MECHANICAL CAN CUTTER



Patent applied for.

- 1—Saves money.
- 2—Saves time.
- 3—Quick adjustment to fit 1, 3 or 5-gallon cans.
- 4—Cuts 4 holes in sides at bottom rim (not in bottom) in one easy stroke.
- 5—Case-hardened blades for longer wear.
- 6—Replaceable parts.
- 7—Assembled, ready for use.
- 8—Shipping weight 45 pounds.
- 9—AVAILABLE FOR IMMEDIATE DELIVERY.
- 10—Price F.O.B. Nursery, \$38.50. Cash with order please.

VERHALEN NURSERY COMPANY

1114 South Beckley
Dallas, Texas

Scottsville, Texas

HYPONEX PLANT FOOD

CLEAN—ODORLESS—SOLUBLE—POWDER

USE HYPONEX to grow bigger and better flowers and vegetables in poorest soil—even in sand, clinders or water. Excellent fertilizer for trees, shrubs, lawns and houseplants.

USE HYPONEX for top dressing, seedlings, cuttings and transplants. Produce strong root systems and stems, also more and larger flowers and fruit.

SELL HYPONEX to your customers. Nationally advertised.

1 oz. packet...10c.—packed 72 to case—wt. 7 lbs.
3 oz. can...25c.—packed 26 to case—wt. 12 lbs.
7 oz. can...50c.—packed 24 to case—wt. 14 lbs.
1 lb. can...\$1.00.—packed 12 to case—wt. 16 lbs.
10 lb. drum \$8—25 lbs. \$15—50 lbs. \$25—100 lbs. \$40
Commercial growers and dealers receive 33-1/3% discount from the above retail prices.

BUY HYPONEX from your jobber or send \$1 for 1 lb. (makes 100 gallons). \$1 credited on first order for 1 drum or case.

HYDROPONIC CHEMICAL COMPANY, Inc.
315 West 39th Street, New York 18, N. Y.

DOWAX

★ Extends transplanting season

★ Reduces losses



DOW

AGRICULTURAL CHEMICALS DIVISION
THE DOW CHEMICAL COMPANY
MIDLAND, MICHIGAN

MICHIGAN PEAT Nature's Finest Soil Builder

Used by leading growers for 30 years. Rich in nitrogen and plant food. Economical. COSTS LESS TO USE! Packed in 100-lb. bags, averaging 4 bu. Prices F.O.B. Capac, Mich. Each

1 to 19 bags.....	\$1.65
20 to 99 bags.....	1.50
100 to 400 bags.....	1.40

Bulk cars, \$14.00 per ton.

American Soil Sponge Selling Corp.
267 Fifth Ave. New York 16, N. Y.
Plant Capac, Mich. Capac 62.

HORMO ROOT for CUTTINGS

A new product made up of an efficient root-producing hormone and a fungicide, together with other growth-stimulating agents. Best applied with a duster or mixed with water at the rate of four rounded tablespoons to the quart.

HORMO ROOT A.

For all softwood cuttings. Dusted on seeds before sowing it will give better and quicker germination.

2 oz., \$1.00; 1/2 lb., \$2.50; 1 lb., \$5.00.

HORMO ROOT B.

For hardwood and difficult-to-root cuttings.

1/2 lb., \$4.50; 1 lb., \$8.00.

Duster for applying hormone powders.
\$1.65.

SOMERSET ROSE NURSERY, INC.
P. O. Box 608 New Brunswick, N. J.

ARIENS-Tiller



THE MOST COMPLETE LINE OF TILLAGE EQUIPMENT IN THE WORLD. CA PACITIES 14 IN. TO 7 FT CUTTING WIDTHS
ARIENS CO.
Box 710 BRILLION, WIS.

RUBBER Products

AMERICA'S FINEST

KATFISH BRAND	Rubber Bands	Aprons	Budding Strips	Choking	Spray Nozzles	Knurling Pads	Footwear	Gloves	Sponge Rubber	Balls	More
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* GET OUR CATALOG AND PRICE SHEET
BROADWAY RUBBER MFG. CO. LOUISVILLE 2, KY.

OBSERVATIONS ON LILIES.

[Continued from page 19.]

clump of this lily in the garden several years, the original bulb being planted a foot deep in a group of Waterer's spiraea, where the lower two or three feet of the lily was shaded. It appears to be one of the easier of the western American lilies.

To my great sorrow, I have never been able to grow the lovely *L. japonicum*, the plant that the catalogs talk about in such glowing terms. It sometimes persists for two or three years, giving sparingly of its handsome, fragrant pink trumpets, which tell one how beautiful it could be if it wanted to be. If you can grow it (it is said to want about half shade in moist leafy soil), you will have something out of the ordinary.

I do not know *L. leichtlini* for sure, although several plants have been in my garden for a short time under that name. As the species is said to be erratic, or at least short-lived under garden conditions, it may be that the plants were correctly named and could not be identified because of the absence of flowers. On the other hand, its variety *maximowiczii* is not only tractable but is quite persistent under garden conditions. Personally, I can see little reason for fussing with it when *L. tigrinum*, a similar kind, is so well established in gardens.

In the type *L. martagon* can be a dud, while in some of its varieties and hybrids it can be among the loveliest of the easy lilies. It should be added, however, that some gardeners report trouble, or at least unsatisfactory results, from even the generally reliable type; so one should experiment a little before plunging into martagon culture. Generally speaking, it and its varieties are easy in about half shade in a leafy soil, planted about six inches deep. The best form that I know is *L. Martagon Album*, an exquisite pure white flower; another white form, var. *Albiflorum*, with pink spots, is highly spoken of in the literature. And then there are a number of hybrids with martagon or its white form as one parent and often with *L. hansonii* as the other.

L. Marhanson is one of the better of these, a tall plant (to five feet) with lovely orange flowers, spotted with reddish-brown. It is an easy doer, needing the same care in respect to late frosts as *L. hansonii* and *L. regale*. A seedling of this hybrid, G. F. Wilson, is a promising thing, whose citron-yellow flowers with carmine tips and purple spots are a pretty variation in the group. Among the better martagon-hansonii hybrids, *Brocade*, with orange-yellow

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2	9 1/2 ins.	7 ins.	6 1/2 ins.	15 lbs.	8-in.	77 lbs.	4.50	40.00
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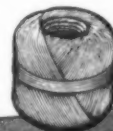
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flowers with maroon spots and pink marbling, may be mentioned. There is a lot of good material in this group, most of it easy in the garden.

As I had a quite extensive note in this column some time ago on *L. Maxwill*, it need not occupy our attention now, except to say that it has about everything, including ease of culture, vigor and adaptability to a wide range of growing conditions. It is essentially a lighter-colored *L. willmottiae*.

Although I have had no experience with *L. monadelphum*, for several years I have watched a planting on an estate that I visit frequently and have been favorably impressed by the plant's lovely yellow flowers. There *L. monadelphum* grows about four feet tall in open woodland, where it has less than half shade. The soil is naturally moist and has had clay added to its naturally sandy make-up.

Of the long list of western American lilies that I have tried in this climate, *L. pardalinum* is the most reliable and, in its better forms, the most desirable. As to the latter, I cannot speak from wide experience. The best that I have grown is the form known as Sunset lily, *L. pardalinum giganteum* of botanists. Here we have a plant to six or eight feet in stature with an abundance of large yellow and red flowers (I once had a stem with twenty-seven) and of easy culture in sun or part shade and apparently in almost any soil suited to lilies.

The *L. tenuifolium* of gardens, *L. pumilum* of botanists, needs no introduction or praise from me. I suspect, though, that many growers are deriving less satisfaction from it than is possible because of too shallow planting. It may be a short-lived plant, as most maintain, but I have a long performance from it since I put it in about five inches deep.

Nor does *L. regale* need any comment, except as a matter of record in an enumeration of lilies for American conditions.

One of my favorite dwarf lilies is the Japanese *L. rubellum*. Accounted rather delicate, it proved quite amenable here in a leafy soil in half shade with some watering in dry weather. It is a beautiful little thing, growing about a foot to fifteen inches tall here, with small, deep rose trumpets early in the lily season. A stem root-er, it should go in four to six inches.

I hope to see before I die a disease-free *L. speciosum*; then I know I shall have my favorite lily. If it happened to be *L. speciosum magnificum*, with its crimson-suffused pink-spotted flowers, I should be sur-

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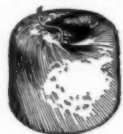
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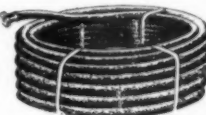
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premiere happy. The entire speciosum group is a magnificent lot, easy to grow, despite disease, in a well drained spot in part shade by preference, I believe, or in full sun. What we need is disease-free stock, which was impossible, so far as I have seen, in either Japanese or Dutch imports before the war.

Although I cannot grow it as I like to see it, the American Turk's-cap lily, *L. superbum*, remains one of my favorite kinds. I have not been able to figure out where I fail with it, unless the soil is too dry and perhaps too alkaline. I notice in nature that it associates itself with plants of a known liking for an acid soil or at least one of neutral reaction and always, so far as I have observed, in one supplied with an abundance of humus. I think, too, that I have erred in putting it in too much shade. It likes the lower part of its stems shaded by herbage, but selects full sun for its home. And, of course, it likes plenty of moisture with good drainage. A well grown plant may grow seven or eight feet tall, with nodding Turk's-cap flowers of varying degrees of orange colors, always, so far as I know, shading to crimson toward the end of the petals and spotted with maroon at the center. It is a floriferous plant of excellent blooming habits and a flowering period in sum-

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mer that commends it everywhere.

I had hoped to describe all the kinds selected for this enumeration in two issues, but the three or four omitted will be included in the notes of the next issue.

CATALOGS RECEIVED.

Doty & Doerner, Inc., Nurseries, Portland, Ore.—Advance fall wholesale price list of deciduous trees and shrubs, evergreens, fruit trees and small fruits, 20 pages and cover, 8½x10½ inches.

George J. Ball, Inc., West Chicago, Ill.—Wholesale catalog of flower seeds, with illustrations, 16 pages, 7½x10 inches.

William M. Hunt & Co., New York, N. Y.—Retail folder of strawberry plants, flower and vegetable seeds, 4½x10 inches folded.

Rich & Sons Nursery, Hillsboro, Ore.—Descriptive catalog of small fruits and fruit trees, roses, flowering trees and shrubs, broad-leaved evergreens, and coniferous evergreen shrubs, vines, shade trees, perennials, begonias and gladioli, handsomely illustrated in color, 36 pages and cover, 7¼x10¾ inches.

L. N. Roberson Co., Seattle, Wash.—Retail price list of rock plants, rhododendrons, azaleas, camellias, conifers, perennials, ground covers and water plants, some illustrations, 24 pages, 4x9 inches.

Mission Gardens, Techny, Ill.—Descriptive price list of irises, peonies and hemerocallis, 36 pages and cover, 5½x8½ inches.

CHALIN LEWIS, a 4-year infantry veteran, is starting a nursery at Piggott, Ark.

A LANDSCAPE nursery known as the Gateway Nursery has been started at Clinton, Ia., by Robert H. and William J. Rickoff.

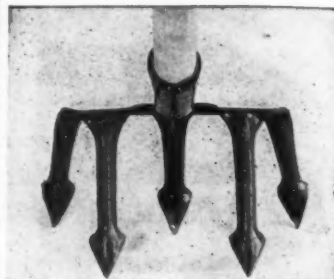
DODD'S NURSERY, an 8-acre retail establishment, has been started at Martin, Tenn., by B. E. Dodd, recently released from the army after more than three years' service.

A. W. TORN and Fred Anhalt are the new owners of the Campus Nursery Sales, 5000 Twenty-fifth avenue, N.E., Seattle, Wash. Maude C. Hunt is the store manager, while Max L. Groeger is in charge of the landscaping department. The building was designed by the owners.

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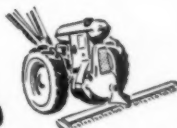
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